R 6/134

UNIVERSITY COLLEGE LONDON

ANNUAL REPORT 1986-87

CONTENTS

Officers of the College 5

Foreword by the Provost 7

Part I Contributions to maintaining academic strength in the face of further erosion in the value of UGC grants 7

1. The persistent pattern of erosion 7
2. Overseas students of excellent quality and greatly increased numbers 8
3. Freezes necessarily imposed on posts funded by block recurrent grant 10
4. The inestimable value of Professorships and other posts at UCL endowed by generous benefactors 12

Part II Speech to the Annual General Meeting (Autumn 1987) of 'Save British Science' 14

The Report for 1986-87 25

Visits: HRH The Princess Anne 27
The Rt Hon. Kenneth Baker, Secretary of State for Education and Science 28
Mr George Walden, Parliamentary Under-Secretary of State for Education and Science 28
Lord Goff, Chairman of the Court of the University 29

Assembly of Faculties 29

Developments towards the formation of the University College and Middlesex School of Medicine of UCL 30
University of London Review of the Faculty of Arts 34
Collaboration with Birkbeck College: Geological Sciences 35
Hispanic Studies in Bloomsbury 36
Agreement with the Hebrew University of Jerusalem 37
The Bentham Project 37
'Protection' of Dutch and Scandinavian Studies 38
University of London: Academic Initiatives 38
Japanese Law Initiative 39
The Philips Centre for Lighting Education and Research 40
Working Party on the Development Planning Unit 41
Institute of Archaeology: Conservation Centre Appeal 42
Monitoring Research Selectivity 42

General Review of College Finances for the Year 43
Sites and Buildings 44
Staff Training and Development 46
The Administration 46
Working Parties on Audio Visual and Photographic and Illustration and Associated Services 47
Library 48
Computer Centre 51
Academic Services Unit 51
Foreign Study Office 53
Liaison with Schools 54
External Relations 56
Careers Advisory Group 57
Student Accommodation 57

Friends of UCL 59
Old Students' Association 60
College Council 60

Public Lectures 61

Supplement: Honours, Distinctions and Awards 66
Appointments 68
Retirements 69
Resignations 73
Obituaries 74

Publications by Members of College Departments:
Faculty of Arts 78
Faculty of Laws 118
Faculty of Science 123
Faculty of Engineering 167
Faculty of Environmental Studies 186
Faculty of Medical Sciences 189
Faculty of Clinical Sciences 211

Appendices

I Numbers of Students 260
II University First Degree and Diploma Awards 261
III University Higher Degree and Higher Diploma Awards . . 265
IV College Diploma and Certificate Awards 271
V Scholarships, Studentships and Prizes:
College and University Awards 277
VI Benefactions, Donations, Research Grants and Contracts . 282
VII College Accounts 300

OFFICERS OF THE COLLEGE

VISITOR
MASTER OF THE ROLLS

CHAIRMAN OF THE COUNCIL
SIR PETER MATTHEWS

VICE-CHAIRMAN OF THE COUNCIL
SIR JAMES HAMILTON
KCB, MBE

TREASURER
H. M. PRIESTLEY
MA

PROVOST
SIR JAMES LIGHTHILL
DSC, FRAES, FIMA, FRS

VICE-PROVOSTS
PROFESSOR D. E. N. DAVIES
CBE, DSC, FIEE, FIERE, FENG, FRS

PROFESSOR D. V. I. FAIRWEATHER
MB, CHB, MD, FRCOG

PROFESSOR J. E. C. T. WHITE
CBE, MA, PHD

SECRETARY
I. H. BAKER
CBE

FOREWORD BY THE PROVOST

PART I. CONTRIBUTIONS TO MAINTAINING ACADEMIC STRENGTH IN THE FACE OF FURTHER EROSION IN THE VALUE OF UGC GRANTS

1. The persistent pattern of erosion

In the Provost's Foreword to the previous year's Annual Report, Part II under the title 'Further Erosion in Value of UGC Grants to Universities' gave an account of how the drastic cuts in real terms applied to UGC grants in the early 1980s were being followed later in the decade by severe continued erosion. Furthermore, though current methods of grant allocation incorporated a general policy of selective support for excellence in research, a London institution of great research strength (associated with outstanding teaching programmes) was in the latter half of the decade just as in the former half being subjected to an even bigger percentage reduction in the value of its block recurrent grant than the average British university.

The erosion has in the meantime persisted; mainly, in the form of an insufficiently funded academic salary settlement. For a second year in succession, therefore, I have used Part II of the Provost's Foreword to point a contrast between nationally gathered evidence for the exceptional quality of UCL and the stark facts of the College's financial predicament. This Part II reproduces a speech that I gave in October 1987 to the Annual General Meeting of 'Save British Science', emphasizing that among the threats to British Science as a whole must be numbered threats to the continued viability of the nation's scientifically eminent institutions.

University College London has retained its eminence both in the science-based and in the arts-based subjects, in spite of a huge 'twofold' reduction in resource around 1981, followed by further severe erosion around 1986, and has done so entirely as a result of its staff's loyal determination to seize on every opportunity for maintaining solvency through (i) a comprehensive programme of prunings of expenditure and augmentations of income, as well as through (ii) participation, as part of the University of London, in many important rationalization schemes. Part II outlines much of this process, while a full account (looking both backwards and forwards) of the financial measures necessarily adopted by the College in the 1980s was produced by its Finance Division in the summer of 1987 under the title 'UCL: the changing financial profile from 1980 to 1987 — and plans to 1990'.

On the income-augmentation side of this 'profile' Part II emphasizes our College's outstanding success (see Table 2) in competitively winning research grants and contracts (a) from Research Councils and other public bodies, (b) from charitable foundations, and (c) from industry. On the expenditure-pruning side it deplores the fact that (even after staff reductions resulting from over 200 early retirements) we are increasingly forced to impose 'freezes' on the filling of academic posts charged to the College's 'general' funds, with the implication that no young person, however able, can be brought into such a post on the UCL staff for the duration of such a freeze. Here in Part I, this depressing implication of any overall freeze on posts funded by block recurrent grant (such as first needed to be imposed in the academic year 1986-87 here reported on) is further pursued in section 3 below, which, in turn, is followed by a grateful account (section 4) of the special value to UCL of income augmentation from generous benefactors who have endowed new academic posts tenable at the College. First of all, however, I want to draw attention to a massive increase during 1986-87 in another source of income augmentation without which the maintenance of UCL's academic eminence during the 1980s would have been practically impossible.

2. *Overseas students of excellent quality and greatly increased numbers*

We must first recall the nature of the huge 'twofold' reduction in resource imposed by Government around 1981. Firstly, the proportion of UCL's students from outside the present European Community had long been relatively high (at 14 per cent) because good overseas students were attracted both by the College's reputation and by its metropolitan situation. The consequent drastic reduction of UCL's resources by 14 per cent in real terms could at most be compensated for partially (about half in the early years) by recovery of fees from such students. Secondly, the College additionally sustained a heavy share of those high 'volume cuts' that were imposed in the March 1981 budget, a share which represented a percentage reduction slightly greater than the reduction for the University of London as a whole, which, in turn, slightly exceeded the average recurrent resource reduction for UK universities.

Simultaneously with the programme of massive non-pay cost-cutting together with an even more drastic loss of staff posts that needed at once to be adopted (as recalled in section 3 below), the slimmed UCL staff was immediately constrained to devote some most energetic efforts to recruiting good 'high-fee' students; that is, overseas students other than those from

the European Community (who for fee purposes were to be treated as home students). It is indeed greatly to the staff's credit that, in spite of the immediate strongly deterrent effect of the new high fees, the overall number of non-EC full-time students in the College fell to only a modest extent in 1981, since when it has been built up remarkably, as the following figures show:

Numbers of full-time students at UCL on 31 December

Year	1980	1981	1982	1983	1984	1985	1986
Total	6123	6244	6229	6279	6297	6339	6895 (200)
Low-fee	5297	5498	5468	5449	5398	5424	5692 (155)
High-fee	826	746	761	830	899	915	1203 (45)
High-fee (%)	13.5%	11.0%	12.2%	13.2%	14.3%	14.4%	17.4%

(Note: bracketed figures in the last column give the Institute of Archaeology contributions to the totals in 1986, the year when it joined UCL).

It is especially appropriate to highlight those successes in the Annual Report for 1986-87, the academic year in which the biggest rise in numbers of high-fee full-time students took place.

These achievements have in no case been at the expense of quality. Those recruiting overseas students for the College are continually concerned to maintain the traditionally high standards of intake into UCL whether of home students or of overseas students. Academic Board has firmly resolved that all students entering on a course must (regardless of their origin) meet the well established entry criteria for that course. The increase of numbers was achieved, then, *not* by any reduction in standards but by a still more energetic recruiting effort, which had been recognised as necessary (and, accordingly, stimulated by appropriate incentive measures) in the light of all the persistent erosion in the value of UGC grants described in section 1.

Recruitment for the 1986-87 academic year had especially benefited too from assiduous activity by the College Registrar, Mr Jeremy Arterton, and by several of his staff including the newly appointed Foreign Study Office Director, Mr Peter Craggs, as well as from an enhanced number of visits abroad in which academic staff combined recruiting work overseas with visits made for research or conference purposes. Excellent students were recruited in South East Asia with full use of British Council services and with valuable help from the College's Director of External Relations, Dr Stephen Montgomery. A large increase in numbers of able American students spending a fruitful Junior Year Abroad at UCL was another very welcome result of vigorous recruitment activity.

As a financial consequence, the College's fee income from high-fee students was increased by £1.7m between 1985-86 and 1986-87, a greatly needed increase which acted to offset in part the decline in value of grants to the College. Yet the persistent pattern of relentless erosion was soon recognised as necessitating still more increases in such fee income; and careful attention to the strategy of how to achieve this was given during 1986-87 within the overall College policy of maintaining truly integrated teaching (with the overseas students mingling appropriately within preponderantly home-student classes so as to retain to the full all the long established benefits of UCL's cosmopolitan character).

In quantitative terms, while it was essential to strengthen still further the recruitment efforts and also to augment the consequent fee income from high-fee students, any increase in the percentage of such students among the overall student body needed to be restrained to a maximum of 20 per cent for the College as a whole, rising to a maximum of 30 per cent within particular subject areas. The College's new fee schedules, fixed in 1987 for the first time at a level above the UGC's minimum, (for high-fee entrants joining in 1987-88 or thereafter) were accepted as the only practicable means for reconciling the academic and the financial imperatives. Preliminary evidence indicates (in the Autumn of 1987) that in both respects the strategy is proving successful.

3. Freezes necessarily imposed on posts funded by block recurrent grant

Yet another quite drastic new measure introduced for the first time during 1986-87 was a 'freeze' imposed throughout a particular six-month period on the filling of any posts whatsoever within a well defined (and rather large) category. In fact, cash-flow problems in the middle of the academic year made it important to have a moratorium on the filling of any Lectureship vacancies (non-clinical) during the months of November to April inclusive.

Any long-standing observer of UCL policy will recognize the revolutionary about-face (not to say U-turn) underlying such a grim decision. In my Provost's Foreword to the 1982-83 Annual Report I listed all the energetic measures being taken in response to the large 'twofold' reduction in resources of the universities imposed by Government in 1981, and went on to describe as follows a further vital element in that response:

> "On the other hand, the College rejected the policy (adopted by some universities) of 'freezing' all vacancies resulting from natural wastage; and it did this on the grounds that the random incidence of these vacancies would produce an arbitrary distortion of academic policy and make impossible the maintenance of academic effectiveness across all main areas of the College's work. It was necessary, rather, to be highly selective and fill some

modest proportion of the posts becoming vacant in this way; in fact, those posts that were essential for continued academic strength. For example, out of a total of 143 academic and technical staff posts becoming vacant in the sessions 1981-82 and 1982-83, a small proportion of essential posts (35 in number) were filled, and a few more (23) were replaced by appointments at a lower grade, leaving only 85 unfilled. To finance such a policy, the College in those sessions deliberately incurred deficits due for repayment after the closing date (30 September 1984) for UGC-funded early retirements, when a period of level funding had been promised."

Everyone knows that the latter promise was by no means honoured, and will understand how all the continued erosion of resources after 1984 has made the repayment of deficits impossible. In other respects, however, the policy was highly successful, contributing to the maintenance of academic excellence in all areas of the College that was later to be recognised in the UGC ratings for research (see, for example, Table 1 below). Even in purely financial terms this can be seen to have been 'a good investment' because of the positive effect of excellent ratings on UGC grant, although, of course, all institutions, however excellent, suffered grave additional reductions in value of that grant in the later 1980s.

In the meantime, the College was at least able to prevent the overall accumulated deficit from reaching that upper limit of £5m which its Governing Body, the College Council, under the wise chairmanship of Sir Peter Matthews and with the unanimous support of lay members including the distinguished Vice-Chairman, Sir James Hamilton, and Treasurer, Mr Hugh Priestley, as well as of academic-staff members and student members, agreed as the maximum acceptable figure. From the Accounts for 1986-87 presented in this document, readers will note that the accumulated deficit at the end of the year stood at £4.75m. Even in a College where the total income for 1986-87 is revealed by the same Accounts to have been £64.4m, it is accepted that no further increase in that accumulated deficit can be tolerated.

It is in this context that freezes imposed on posts funded by block recurrent grant may need to be seen as completely unavoidable during a period between any further erosion in the value of that grant and the moment when commitments can be pruned sufficiently to reach on-going balance. It has been with great disappointment that the College has been forced against all its inclinations to accept the inevitability of such freezes; one having been imposed in 1986-87 and another being almost certainly needed in 1987-88.

It is especially unfortunate for some of the country's ablest young people that opportunities for them to be taken on to the teaching staff of one of the country's academically strongest institutions are drying up in this way as a direct result of the Government's present policies. This is the aspect

highlighted in my speech reproduced as Part II of the present Foreword, copies of which I have circulated widely in the hope of enlisting support for a relaxation of those 'stranglehold' measures that have led to this serious situation.

4. The inestimable value of Professorships and other posts at UCL endowed by generous benefactors

In the bitterly cold financial climate that has just been described, a marvellous blessing for our College has been the warmhearted generosity of benefactors, corporate and individual, who have contributed to endow academic posts tenable at UCL. The endowment of Professorships (as in *seventeen* different cases that I shall mention in this section) permits an invaluable further strengthening of the College's higher academic leadership. At the same time the winning by more than 30 brilliant young people of appointments to endowed positions to be held at UCL (for a variety of durations) has been bringing both those young people themselves and our academic community as a whole priceless benefits of a kind which the College is as we have seen unable to offer at present from its own eroded resources. A vital challenge facing the UGC and its successor, the Universities Funding Council, will be to win enough resources for the universities so that such handpicked scholars can on termination of their present periods of appointment be transferred to the normal teaching staffs at the institutions where their outstanding work is conducted.

There are of course many named Chairs at UCL where the name recalls a most generous benefaction made long ago but where no significant contribution from that benefaction accrues on a continuing basis to the present costs of the Chair. Those are names we perpetuate with pride and gratitude. In this section, however, I refer only to 17 benefactions which are contributing either the whole or a substantial part to the salary and other costs of existing or forthcoming Professors at UCL.

Benefactors from overseas deserve our special gratitude, as when the University was able in 1987 to establish a Chair of Japanese Law tenable in the UCL Faculty of Laws as a result of munificent endowments including the impressive sum of £800,000 collected from donors in Japan itself. The new UCL Professor (working, of course, in close cooperation with the School of Oriental and African Studies) will strengthen still further UCL's already powerful links with Japan.

In the meantime, our continuing close relationship with the Netherlands benefits immeasurably from the staunch interest shown by successive Dutch

Ambassadors in London, leading to the continuation of their Government's generous contribution towards the costs of two UCL Chairs: those of Dutch Language and Literature and of Dutch History and Institutions. Study at UCL of the now officially unified Dutch language, with its numerous speakers in Belgium as well as in the Netherlands, gains too from the powerful support of the Belgian Government, providing the salary cost of a valuable Lecturer in Flemish.

Four of Britain's leading industrial firms recently took most beneficent action to endow Chairs at UCL in important areas of engineering and applied science: the Smith Kline & French Chair of Medicinal Chemistry, the VSEL Chair of Submarine Design and Engineering, the Shell Chair of Mechanical Engineering and the British Telecommunications Chair of Optoelectronics. The College is profoundly grateful to all of these firms for their very timely support of important industrially oriented work at the College. We also value greatly the support given for three non-professorial academic posts in Electronic and Electrical Engineering provided by STC, by Solartron and by GEC; and for a post in the Bartlett School of Architecture and Planning sponsored by Philips which is allowing that School to develop the country's first MSc in Lighting.

The private munificence of an individual benefactor can be marvellously influential through the imaginative endowment of a Chair in a discipline hitherto neglected by the country's universities; as when the Hon. Mr David Astor created in 1974 the Freud Memorial Professorship of Psychoanalysis. The Chair under its present distinguished holder, appointed in 1984, has been exceptionally influential in providing within the UCL Department of Psychology a strong academic centre for psychoanalytic study and research, particularly active in postgraduate teaching (at the MSc and PhD levels) and co-operating admirably with the Psychiatry Department of the University College and Middlesex School of Medicine.

Now, within the School of Medicine itself, another outstandingly generous individual (who prefers at present not to be named) has splendidly endowed Britain's first Chair of Plastic and Reconstructive Surgery. This will allow vigorous teaching and research in that important field to interact with the long established clinical excellence of UCH within plastic surgery.

In the meantime, the Memorial Trust Fund set up to commemorate that incomparable musician Dame Kathleen Ferrier reached the level where it was possible to endow a Kathleen Ferrier Chair of Clinical Oncology and to secure during 1986-87 an outstanding appointment to it. With other developments, this appointment is acting to make the UCM School of Medicine one of the country's leading centres for oncological research and postgraduate teaching.

The Royal Society in the 1980s has continued its powerful support (now of long standing) for Research Professorships, while making at the same time an impressively large increase in the number of Research Fellowships supported. One of the most prestigious Professorships awarded by the Society is the Foulerton Research Professorship, awarded as from October 1986 to a distinguished Professor in the Department of Anatomy and Developmental Biology; and the great strength of developmental biology in the College is further enhanced by this valuable award.

The College is proud too that no less than eight Research Fellows of the Royal Society are active here at UCL. These eight outstanding scientists include three in Physics and Astronomy, two in Physiology and one each in the Departments of Biology, Chemistry and Geological Sciences.

In the humanities, the British Academy has assumed an analogously important role through the relatively recent institution of its Research Readerships. One of these was won at UCL (in the Department of Phonetics and Linguistics) during the 1986-87 session proper, and soon afterwards we learnt of two more such successes (in the Departments of English Language and Literature, and of History). These new developments complement the British Academy's existing invaluable support to particular research projects within the College.

That same gloss applies, of course, to Research Councils who powerfully support many research programmes at UCL but where, in the present context, we highlight only the academic posts (in a strict sense) funded by them. The College has benefited greatly from the Senior Research Fellowship scheme of the Science and Engineering Research Council, which currently funds one of the eminent Professors in our Department of Physics and Astronomy. In addition, the Medical Research Council funds two Professorships at UCL, both held (in the Departments of Biology and of Anatomy and Developmental Biology) by distinguished neuroscientists. We are grateful to MRC also for valuable awards of Training Fellowships in three departments of the College.

During 1986-87 the Department of Health and Social Security agreed to endow a Chair of Clinical Operational Research and Information Technology in UCL's Department of Statistical Science. The holder will be the Director of the DHSS-funded Clinical Operational Research Unit, which is vigorously engaged in comparative evaluation of alternative treatment strategies for particular types of cancer.

The great charitable organizations supporting academic posts at UCL include the country's two major cancer-research charities, the Cancer Research Campaign and the Imperial Cancer Research Fund, each of which

gives massive support to a large body of biomedical research work in the College. Here we refer only to (i) the long-term academic appointments as CRC Life Fellows of an eminent Professor of Biochemistry (on The Middlesex site) and also of a gifted research worker in the Department of Oncology, an area of excellence mentioned earlier which is further strengthened by (ii) the distinguished presence of the ICRF Human Tumour Immunology Unit.

The Sir Jules Thorn Charitable Trust has been a source of immense benefit to the UCM School of Medicine in the course of its vitally important physical restructuring programme, but has been generous also in other ways, including at present the much valued support of a Research Fellow in the Department of Medicine. Other individual Research Fellowships funded by charitable organizations include, in the Department of Obstetrics and Gynaecology, a Quest Research Fellow and a Florence and William Blair Bell Memorial Fellow; and, in the Department of Physiology, a Lister Institute Research Fellow.

Finally, my survey of academic posts tenable at UCL funded by beneficent outside organizations comes to an end on the highest possible note of grateful recognition of the unique contributions made by The Wellcome Trust, which celebrated its Golden Jubilee during 1986-87. One of the special Jubilee celebrations was held at UCL on 27 May 1987, when the whole University College and Middlesex School of Medicine expressed its heartfelt and enthusiastic thanks for everything the Trust had done for the present united School and also for its forerunners.

The programme for the celebratory symposium included a valuable contribution from the famous Academic Unit (situated in UCL) of the Wellcome Institute for the History of Medicine. It included also major oral presentations and poster displays on many areas of biomedical research work at the School supported by The Wellcome Trust.

Above all, it highlighted the marvellous range of academic posts within the UCM School of Medicine (Lectureships and Senior Lectureships, Training Fellowships, Research Fellowships and Senior Research Fellowships) brought into being through Wellcome Trust benefactions. There are no fewer than 12 of these, spread over the Departments of Anatomy and Developmental Biology, Community Medicine, Genito-Urinary Medicine, Immunology, Medicine, Pharmacology, Physiology, Psychiatry and Surgery. The School of Medicine benefits immeasurably from the opportunities for academic work of the highest quality which these posts in the School funded by The Wellcome Trust give to some of the country's ablest young biomedical scientists.

These scientists, indeed, are typical of those handpicked scholars in many areas of UCL whom (as noted earlier) it will be critically important to transfer to the normal teaching staff of the College on termination of their present periods of appointment. Yet, as we have seen in section 3, there will be no teaching posts available for them unless the case for an improvement in funding of outstanding academic institutions made in this Foreword is accepted, with Government support, by UGC and by the future Universities Funding Council.

PART II. SPEECH TO THE ANNUAL GENERAL MEETING (AUTUMN 1987) OF 'SAVE BRITISH SCIENCE'

1. British science as affected by Government policy towards universities

British Science is important to the world and vitally important to Britain. Your Society has performed a most valuable service in demonstrating these facts and in arguing the case for improved overall support to British Science. As your 'guest speaker' tonight I am *not* going to 'carry coals to Newcastle' and add further to that very strong case already amassed by *Save British Science*.

You have asked me here, rather, as the executive head of an institution, UCL, that includes (dare I say) quite an *important* 'slice' of British Science; and so, as a university man, I am going to give the assembled company a 'tutorial' on the problems faced by the head of such an institution in keeping it going in the 1980s. I aim to be strictly factual and objective in describing those difficult problems and analysing the effectiveness or otherwise of different approaches to solving them.

My subject's relevance, of course, to the overall theme *Save British Science* hangs on my claim that UCL includes 'quite an important slice' of it; in other words, one of the *thicker* slices in the sliced loaf that is British Science and a slice of demonstrably excellent texture and quality. I apologize in advance for a particular short section in the middle of my talk that will necessarily be devoted (once again, in a strictly factual and objective way) to establishing UCL's credentials in this respect. That section has not been inserted in any propagandising spirit but merely to demonstrate that problems of keeping UCL going as they are seen by its executive head are indeed a significant part of the overall problem of keeping British Science going. So please do *not* accuse me of institutional immodesty in offering that evidence.

Incidentally, the factual and objective approach I shall use throughout will (I believe) prevent any DES Minister from using either of the phraseologies 'hysterical opposition' or 'extreme sycophancy' (to quote from THES) as a pen-picture of this particular academic reaction to Government policy. I shall tread an intermediate path.

My starting-point on that path, furthermore, is a free acknowledgement that several specific elements in the Government's policy towards universities (specific elements which I shall list) are helpful to British Science. Quite evidently, fairness demands that I recognize these before I proceed to offer evidence regarding threats to British Science posed by other elements.

First of all, we managers of university institutions welcome the drive towards *efficiency* of management that is typified by the Jarratt study, a study which, of course, our own representative organization CVCP (the Committee of Vice-Chancellors and Principals) instituted in 1984. The more efficiently *managed* an institution becomes, the larger is the share of its total resources that can be productively devoted to teaching and research.

Again, the CVCP is in full agreement with DES Ministers about the importance of distributing support for research in the universities in a highly selective manner, with the main support concentrated in centres of research excellence. Here, the main difference between CVCP and the view held within DES, and especially in its Advisory Board's report *A Strategy for the Science Base,* is concerned with whether excellence should be recognized at the level of the individual department or subject or subject group (a scientist would call this a 'high resolution' discrimination) or whether excellence should be recognized for an institution as a whole. On this issue we in CVCP who, collectively, are pressing the case for 'high resolution' discrimination by departments or by subject groups believe we have the efficiency arguments on *our* side: such 'high resolution' selectivity must tend at any one time to direct research support most precisely into areas which are successfully achieving excellence at that time.

Furthermore, we managers of university institutions know the importance of giving incentives to departments, incentives to maintain excellence or to achieve it as the case may be. Therefore we have to approach with great caution any 'low resolution' classification by entire institutions that might lull a particular department into complacency simply because it could rely on the excellence of most of its neighbouring departments!

In short, we are every bit as concerned as are the Ministers in DES and their Advisory Board to relate as closely as possible the funding of research through UGC to proven quality of research output. At the same time we confidently claim that 'high resolution' quality assurance is provided in the

'peer review' processes meticulously carried out for groups within universities by the Research Councils, and also by UGC itself in its research assessments. We are conscious too that active competition between such a large number of university institutions for external research funding — whether from Research Councils or other public bodies or else from charitable bodies or industrial firms — works rather effectively to ensure that such external support continually tends to go where it can best meet the objectives of the different funding bodies. Nevertheless at the same time, as managers of institutions, we are deeply dependent on that system of 'dual support' by which the UGC (on the basis of information regarding such external research support *and* regarding all the rest of its 'high resolution' selectivity exercise) provides us with the funding we need to keep those laboratories where valuable research is done in good shape with respect to basic building maintenance and basic equipment, 'consumables' and staffing needs.

There is a silly Whitehall joke which describes that UGC element in the support for British Science as a 'black hole'! — implying that it is not subject to mechanisms for accountability and quality control. The truth is exactly the opposite: British Science would disappear vertically downwards into a hole in the ground if that dual-support funding to provide basic laboratory facilities were not there. This UGC funding of research turns that hole in the ground into the necessary firm concrete foundation on which we in the universities are able to build important superstructures of scientific research selectively identified by peer review and by the market forces of competition for research support that I have described.

So we in CVCP are firmly behind selectivity but we think we know better how to apply it within our institutions than do some of the DES analysts. On the other hand, we are not in any disagreement with them about the merits of interdisciplinary research, which proves essential to solve many of the most difficult and important scientific problems. Furthermore, all of those many university institutions that have long maintained effective procedures for ensuring fruitful collaboration in research between departments have learnt by experience that each of the participating departments becomes better through interaction with the others.

And yet another area of agreement between us on how to assess scientific research is that our overall assessment scheme (marking scheme if you like) has to include a *positive* mark for expected applicability. Of course marks have to be given for many other things as well such as scientific excellence and timeliness, but as an applied scientist myself I am very conscious that applied science can be every bit as excellent as pure science; and that, where

this is so, it is right to award a bonus for applicability; and an even bigger bonus for exploitability; and that brings me to the vital need for universities to be well organized to promote effective academic/industrial collaboration. Fortunately, most of us now have excellent structures in place to ensure that good applied research is carried out in an intimate collaboration with industry so that important innovations can be effectively exploited to the benefit of both participants. And the basic purposes of a university are promoted by the fact that its engineers and applied scientists are in close contact with advanced industrial research and development; in particular, our students of these subjects are given valuable reassurance by a very clear involvement of their staff at the cutting edge of research and development in the industries where they (the students) look to find employment.

And this brings me to my final point in this first section of my talk, the section where I am listing areas of broad agreement. Alongside the need for quality assurance with regard to the research in universities on which UGC funds are spent we can fully agree also on the need for assurance regarding teaching quality. Admittedly, we university scientists *must* on the basis of our experience firmly insist that research quality makes a most vital and positive contribution to teaching quality at the high level represented in our institutions. Simultaneously, we have, however, to emphasize that specific efforts need to be made to maintain high standards of teaching, and to ensure that the quality of teaching which our admirable students deserve is in fact being provided to them.

2. *Evidence that UCL includes a 'slice' of British Science that is worth saving*

But enough of generalities! The remainder of my talk will be devoted to an account of the problems that I personally face in keeping one particular institution going. And, as promised, I preface that account by giving a few factual data about UCL under the broad headings that I have highlighted in my remarks so far; essentially, to establish that in UCL we have a 'slice' of British Science that is worth saving.

First of all, we *were* one of the six institutions that were subjected to a detailed Jarratt study of our management efficiency, with the help of the excellent management consultants Deloitte, Haskins and Sells. Besides giving us in their two-volume report many valuable detailed suggestions (which have all been acted on) they stated as their general conclusion that "the College's organizational structure and decision processes are effective", and we found this most encouraging.

In the meantime we have been further pursuing academic effectiveness and efficiency in the Bloomsbury area of London through sensible rationalization schemes, in which we have been active already for five years. Out of those, the one I shall mention here is the extremely comprehensive unification of the UCL School of Medicine with its close neighbour The Middlesex Hospital Medical School to form the University College and Middlesex School of Medicine of University College London, with an annual intake of 200 medical students. This unification has been academically effective because we took active steps to ensure that each individual specialist department was physically unified either on one site or the other, and this is extremely important even when the two sites are only eight minutes' walk away. For example, all the pre-clinical teaching is being concentrated on the University College site (and that will be completed next year) while disciplines such as pathology and oncology are concentrated on The Middlesex site. Not only teaching but also scientific research is greatly benefited by such physical concentration of expertise. All the data I shall quote are for the extended UCL including The Middlesex Hospital Medical School.

Next I must refer to the results of the 'high resolution' assessment of different subjects or subject groups within this extended UCL as carried out on various criteria. And I remind you again that any factual detail I present is included exclusively as necessary background material for the last section of my talk.

Table 1 (page 23) gives last year's research assessments by UGC in terms of those subject groups which they insist on calling 'Cost Centres'. The Table just lists those institutions where more than half of the Cost Centres (that is, more than half of the subject groups) were rated 'better than average in the UK'. The ordering (which seems to put UCL in the 'bronze medal' position) is in terms of the *percentage* of those subject groups that were rated better than average. The right-hand column gives the number of individual subjects (often, individual subjects within subject groups) that were 'starred' as outstanding; and, without specifying these in detail, I will just remark in relation to UCL that every one of our Engineering disciplines was starred. At the other end of the spectrum I have to say also that our arts-based disciplines did every bit as well as our science-based disciplines; so that principles of selectivity could not possibly justify the institution's head in any move towards trying to solve the problems of the latter by raiding the former!

For the science-based disciplines we all utilize for internal 'selectivity' purposes the detailed distribution of income from research grants and

contracts obtained from Research Councils and other public bodies, from charitable organizations and from industry. Here I shall list (Table 2, page 24) just the totals for whole institutions (in order of their overall size) for those ten institutions for which that total volume of research grants and contracts is largest. We at UCL are pleased in this table to have stepped up into the silver-medal position!

And then in the context of engineering and applied science and their exploitability through close academic/industrial collaboration, it may be valuable to give a list of the subtotals representing the volume of research and development grants and contracts awarded by British industry. I am personally happy that this lifts UCL up into the gold-medal position with our friends at Imperial College taking the silver! And all ten university institutions on this list can rightly point out to Ministers how the very close relations with British industry here demonstrated are at a level greatly above those characteristic of the public sector. (Indeed, while showing here only ten university institutions, I might remark that altogether 23 university institutions brought in subtotals of over one million pounds in 1985-86 from industrial grants and contracts.)

And now I'll mention just two further features of UCL. First, our crowded metropolitan campus has always meant that subjects related to each other were also physically close; which has facilitated all the interdisciplinary collaboration I mentioned earlier. It has happened, for example, right across the bio-medical field; or in engineering taken as a whole; or in the physical and mathematical sciences; or right across the arts taken as a whole; or in legal, economic, social and environmental studies. But the importance of that interdisciplinary collaboration does *not* lead me to abandon my case for 'high resolution' selectivity in favour of the selective assessment of large subject areas like these; mainly, because any department which benefits (as at UCL) from close interactions with many strong neighbouring departments *ought to reflect that advantageous situation* in the excellence of that department's own work.

And then as regards teaching, the main objective fact I want to draw your attention to is that right across the College it is *centred* upon small-group teaching which we regard as an optimally cost-effective intermediate point between individual tuition and big lectures (though both of those are represented too). Needless to say we also regard it as self-evident that departments' research strengths enhance their teaching strengths. The proof of the pudding, as far as our teaching is concerned, lies in the fact that 50 per cent of those entering our classified first-degree exams get either a First or an Upper Second (the number with a First being 11 per cent) and that we are achieving this without astronomically high entry grades.

To sum up, there are many features which Ministers want university institutions to exhibit which are indeed exhibited at UCL. Nevertheless, as October 1987 nears its end, I have to say that things cannot stay this way on the basis of the funding projections we have so far been told by UGC to expect. Furthermore, an independent management consultant, Mr Roger McClure, now employed by UGC but formerly in the Deloitte, Haskins and Sells team that came to know UCL really well during the Jarratt efficiency study, has himself testified to the same effect. He agrees that I shall simply be unable to take any new young people on to our teaching staff paid for out of the UGC's current funding projections.

He recognizes, furthermore, that the percentage cuts that we have faced at UCL over the past seven years have been well above the national average. This happened because the Government's initial cuts, at a percentage level equal to an institution's percentage of overseas students, penalized institutions like ours which had always attracted many good overseas students because they wanted to come to academically strong institutions in London; and then we had all the later cuts at, essentially, national average levels on top of that.

On the other hand, we reacted responsibly to our financial position: by 1984 we had been forced into persuading as many as 183 members of our staff to take early retirement under the then UGC scheme. Now, under the latest scheme, we have already another 26 signed up, bringing the total so far to 209, and that has been essential to avoid increasing our accumulated deficit above £5m.

Admittedly, these losses have up to the present been partly offset by earmarked monies for new posts under the New Blood schemes of 1983-86 and two or three analogous schemes. But at a period where no such new monies, earmarked or otherwise, have as yet been promised for the future we can see no way of bringing new young members on to our teaching staff.

This will produce a gravely unbalanced situation, particularly in a College which is successfully attracting more and more external research support. Indeed, the *total* number of staff on the site goes on increasing so that physically it is quite hard to squeeze them all in. The new research staff are mainly in the younger age groups. Clearly, it will be a serious matter if in the future there are no new teaching staff in the younger age groups for them to interact with.

So we at UCL are making this (we believe) well founded plan either for new general funds or for new funds earmarked so as to permit us to appoint a reasonable number of new teaching staff in the younger age group. This

additional support is, I must argue, a necessary condition of our being able to maintain the health of our particular slice of British Science in the years to come.

And needless to say our teaching and research in clinical medicine requires that this condition be met and also another condition in the area of National Health Service policy. This other condition arises from the activities of the NHS Joint Planning Advisory Committee (JPAC) which is seeking to make a major reduction in numbers of hospital doctors in the grades (Registrar and Senior Registrar) that accompany appointment to clinical Lectureships. So our School of Medicine needs help from the general direction of NHS as well as of UGC if it too is to be able to appoint new teaching staff in the younger age group.

I am grateful to this excellent society, Mr Chairman, for allowing me to play a little variation on the *general* theme you have espoused by drawing attention to the dangers that do currently face even an institution that may appear to be very successful. And I hope to have convinced you that the overcoming of institutional predicaments is *one* among the challenges that need to be solved if we are to Save British Science.

TABLE 1

Institutions rated as 'better than average' in over half the subject groups studied	Number of subject *groups* studied	Number where 'better than average'	*Percentage* 'better than average'	Number of 'starred' (Outstanding) *subjects*
Cambridge	25	23	92%	35
Oxford	21	19	90%	32
UCL	24	21	87%	20
ICST	16	12	75%	8
LSE	8	6	75%	8
Warwick	15	10	67%	7
Bristol	26	17	65%	14
Sussex	16	10	62%	10
UMIST	16	10	62%	10
Manchester	28	16	57%	11

TABLE 2

INCOME (£M) IN 1985-86 FROM RESEARCH GRANTS AND CONTRACTS

Totals (all awarding bodies)		*Subtotals (UK industry)*	
Oxford	26.75	UCL	3.76
UCL	20.80	ICST	2.62
Cambridge	18.86	UMIST	2.55
ICST	18.43	Southampton	2.00
Edinburgh	13.91	Cambridge	1.95
Southampton	12.20	Nottingham	1.86
Birmingham	11.52	Bristol	1.80
Glasgow	11.16	Birmingham	1.76
Bristol	10.49	Leeds	1.75
Leeds	10.07	Salford	1.74

(Source: UGC Form 3 returns. Data for UCL include The Middlesex Hospital Medical School).

THE REPORT FOR 1986-87

VISIT OF HRH THE PRINCESS ANNE — 29 APRIL 1987

Her Royal Highness The Princess Anne, Chancellor of the University, visited the Institute of Archaeology on its 50th Anniversary on 29 April 1987. The Chancellor was most interested in all she saw during the visit, which included the major parts of the Institute of Archaeology. On arrival, the Chancellor was met by the Right Honourable Lord Flowers, Vice-Chancellor, and the Principal of the University. Her Royal Highness met Sir Peter Matthews, the Chairman of the College Council, the Provost and the Secretary of the College and was then introduced to Professor J. D. Evans, FBA, the Director of the Institute. The Chancellor saw exhibitions arranged by the Department of Archaeological Conservation and Materials Science, the Department of Human Environment and the Department of the Archaeology of the Roman Provinces, and expressed considerable interest in the briefing and areas of research. The Chancellor remarked specifically on the wide range of different grains which have been found on archaeological sites when compared with modern farming practices and was given a demonstration of how a Roman saddle might have been used. At the conclusion of the visit, a reception was held which included the unveiling of a plaque by the Chancellor following an address by Sir James Lighthill, the Provost.

In his speech, the Provost said that her Royal Highness's visit marked half a century of high achievement at the Institute, which was Britain's foremost centre (and one of the world's leading centres) for education and research in achaeology. The Institute had been founded by Mortimer and Tessa Wheeler, and its original premises in Regent's Park had been opened exactly 50 years ago, on 29 April 1937, by the then Chancellor the Earl of Athlone. Twenty-one years after that, the Institute of Archaeology came of age on 29 April 1958, when the new premises were opened by Lord Athlone's successor as Chancellor of the University of London, Her Majesty Queen Elizabeth The Queen Mother. Continuing the sequence on yet another 29 April the Chancellor had visited the Institute and seen for herself the marvellous width and range of studies that the Institute had built up over half a century and the variety and profundity of its methodology. The College was deeply proud that such a distinguished centre of scholarship had elected to enter within the College's ambit just before the Chancellor's visit set the seal on the Institute's Jubilee celebrations. Her Royal Highness then unveiled a plaque commemorating the occasion.

VISIT OF THE SECRETARY OF STATE FOR EDUCATION AND SCIENCE TO THE MULLARD SPACE SCIENCE LABORATORY — 20 FEBRUARY 1987

The Right Honourable Kenneth Baker, MP, Secretary of State for Education and Science, visited the Mullard Space Science Laboratory on Friday 20 February 1987 and saw areas of research reflecting the work of the Space Science Laboratory. On arrival, the Secretary of State was met by the Provost and the Secretary of the College. He also met Professor J. L. Culhane, FRS, Director of the Mullard Space Science Laboratory, and then toured the building. During the course of his visit the Secretary of State expressed great interest in the Laboratory and had the opportunity to meet the academic, administrative and technical staff, as well as students.

VISIT OF THE PARLIAMENTARY UNDER-SECRETARY OF STATE FOR EDUCATION AND SCIENCE TO STUDENT ACCOMMODATION — 23 OCTOBER 1986

Mr George Walden, CMG, MP, Parliamentary Under-Secretary of State for Education and Science, visited the College's student accommodation on Thursday 23 October 1986. On arrival he was met by the Secretary of the College and escorted to Ifor Evans Hall and Max Rayne House, where he was met by Professor E. H. Brown, Chairman of the Student Accommodation Committee, and Professor D. G. Larman, Warden of Ifor Evans Hall and Max Rayne House. During the course of the visit he met Dr A. K. Huggins, Deputy Secretary, and Mr M. C. Maltby, the Residence Officer. The Parliamentary Under-Secretary spent an hour looking round Ifor Evans Hall and Max Rayne House visiting the accommodation, the bar facilities, and the dining room and student kitchens.

Mr Walden also visited Campbell House, where he was met by Dr J. C. Foreman, Warden of Campbell House, and 119-131 Gower Street, college accommodation which is due for refurbishment. Finally, the Under-Secretary had lunch with students from Campbell House in the Warden's flat, when he had an opportunity to discuss accommodation matters with them.

VISIT OF LORD GOFF, CHAIRMAN OF THE COURT — 19 NOVEMBER 1986

The College was very pleased to welcome the Right Honourable Lord Goff, Chairman of the Court of the University of London, on 19 November 1986. Lord Goff was met by Sir Peter Matthews, Chairman of the Council, the Provost and the Secretary of the College. At a briefing in the Council Room Lord Goff met Professor J. E. C. T. White and Professor D. E. N. Davies, Vice-Provosts, Professor J. L. Jowell, Dean of the Faculty of Laws, Professor N. F. Watson, Dean of the Faculty of Environmental Studies, and Mr W. W. Slack, Dean of The Middlesex Hospital Medical School. In addition, he met Mr D. V. Bowles, the Finance Secretary and Accountant. A briefing ensued and Lord Goff was most interested in the College's policy and activities. A tour of the College followed and Lord Goff then dined with the Provost and senior Officers of the College. This occasion was a very useful and timely one for the College in that it was the first visit to one of the Schools of the University by Lord Goff in his tenure as Chairman of the Court.

ASSEMBLY OF FACULTIES

A large gathering of distinguished guests, members of the staff of the College, students and their parents and friends was present in Friends House for the Assembly of Faculties on Wednesday 17 June. The Chairman of Council, Sir Peter Matthews, welcomed the guests and introduced the proceedings before the Provost reviewed the College's situation and achievements over the past year remarking, that while, on the one hand, the College's excellence in research in Technology, Arts and Social Science, and Medicine had been recognised by the UGC, on the other, for the third year in succession more than fifty per cent of the College's final-year students would receive first class or upper second class Honours degrees.

A highlight of the occasion was the witty and topical address by the distinguished guest speaker, Lord Goff of Chieveley, Chairman of the Court of the University of London. In his speech Lord Goff commented on the divide which in the past had existed between the academic and practical worlds; "it is essential", he said "for the well-being, both of our universities and of our professions and industries, that they should not merely communicate with each other but that they should regard each other with

mutual respect and understanding". He welcomed the fall of the barriers between academic activity and practical affairs, and urged the graduands to struggle to bring the two closer together.

Presenting a vote of thanks to Lord Goff, Professor R. Hepple, Professor of English Law, paid tribute to Lord Goff's intellectual achievement as emphasising "the enormous gains in knowledge and the advancement of higher education that can be made by a combination of fundamental research and the world of practice. It was", said Professor Hepple, "this synthesis of academic research and the real world" on which the College had always thrived since its founding in 1826 as the University of London under the chairmanship of another great lawyer and advocate of popular education, Lord Brougham.

At the end of the formal proceedings the assembled company moved across to the College for the traditional strawberries and cream and other refreshments. In the Cloisters guests were able to view an exhibition of a cross-section of the academic and administrative work of the College.

DEVELOPMENTS TOWARDS THE FORMATION OF THE UNIVERSITY COLLEGE AND MIDDLESEX SCHOOL OF MEDICINE (UCMSM) OF UNIVERSITY COLLEGE LONDON

The UCL Bill which will eventually form the Act of Parliament required to create the new University College and Middlesex School of Medicine was deposited in Parliament on 27 November 1986 with the expectation that it would be dealt with during the 1986-87 Parliamentary session. This should have enabled completion of the legal processes required to establish the UCMSM by 1 August 1987. However, a General Election was announced and the dissolution of Parliament in May 1987 has delayed the formal unification of the constituent institutions. Nevertheless, it was agreed that from 1 August 1987 the constituent institutions should conduct their affairs, as far as practicable, as if legal unification had taken place. Indeed, the first meeting of the Committee of the School of Medicine took place on 16 July to enable it to take over the work of the Joint School Co-ordinating Committee and the Unification Sub-Committee which were both dissolved towards the end of July 1987.

Students and teaching

Selection of the students who would form the first entry into the UCMSM began in November 1986 using a single admissions procedure. The work

done in 1985-86 on harmonizing the UCL and The Middlesex Hospital Medical School (MHMS) admissions procedures was rewarded by a smooth, efficient and successful result. The targets of 190 home students and 5 overseas, high-fee students were met exactly and to these numbers five more students from Malawi were added on a special programme sponsored by the Overseas Development Adminstration. A total of 200 students were selected to start the pre-clinical course in the new School.

The new School-sponsored course in Basic Medical Sciences was formulated by the Pre-Clinical Curriculum Working Party under the chairmanship of Dr P. J. Verrill, Dean of the Faculty of Clinical Sciences. The formation of the new School presented an opportunity to introduce major changes in the Basic Medical Sciences curriculum including a greater degree of integration of teaching in a number of subjects. The course deals with human structure, function, development and behaviour. Another important change was a reduction by about 15 per cent of the time devoted to core teaching and this provided time for students to follow optional courses as well as undertaking a research project in some aspect of Basic Medical Sciences. In the clinical curriculum, attention has been focused on the length of attachments in the second clinical year and agreement was reached on reducing the duration of these from twelve to ten weeks.

Plans have been established to monitor and develop the curriculum in the future under the auspices of the Curriculum and Education Committee with membership from both the Faculty of Medical Sciences and the Faculty of Clinical Sciences. Two Curriculum Sub-Committees, one for each Faculty, will deal with the detail of the Basic Medical Sciences course and the Clinical course.

Mr W. W. Slack, Dean of The MHMS and Dean-elect of the Faculty of Clinical Sciences, chaired a working party to rationalize prizes awarded to students in the Basic Medical Sciences and Clinical Courses. Prizes are available for the majority of subjects studied by the students and it is gratifying to report that several new prizes have been donated during the year. This reflects the interest in our students shown by former students, their families and other well-wishers, an interest for which we are truly grateful.

A working group of staff and students chaired by the Provost considered the merger of the UCL Medical and Dental Students' Society with The Middlesex Hospital Medical School Student Union. The two groups combined to form the UCMSM Student Union and the working group established firm proposals, with administrative and financial guarantees, for the integration of the UCMSM Student Union into UCLU as one of its constituent societies. The UCMSM Student Union enjoys facilities both in

Huntley Street and also in the Windeyer Building. The excellent spirit of co-operation between students has given the UCMSM Student Union a successful year and the annual Rag Week raised £30,000 for local charities including the adolescent cancer unit of The Middlesex Hospital.

Space and administration

A major thrust of the siting programme has been to concentrate the Basic Medical Sciences Departments, as far as possible, on the University College site. Work was begun on the new dissecting and embalming suite in the Rockefeller Building. (The former University College Hospital Medical School, known as the Faculty of Clinical Sciences building from 1980, has now been renamed the Rockefeller Building.) A new Physiology teaching laboratory has been built on the first floor of the Rockefeller Building and new research laboratories in this building for physiologists has allowed for a complete move of Physiology teaching and research to the UCL site and out of the Windeyer Building. Biochemistry, with the exceptions of the research units of Professors Craig, Ketterer and McLean, has almost completed the move to the Faculty of Medical Sciences building. Pharmacology is expected to complete moves to concentrate it in the Faculty of Medical Sciences building later in 1987 and plans are being developed for the remaining moves of Anatomy from the Windeyer into the Rockefeller Building.

Space in the Rockefeller Building was freed in several ways. The ICRF Human Tumour Immunology Group is moving from the Rockefeller into the top floor of the Courtauld Building, this latter building having been vacated by October 1986 under the terms of its lease to the Ludwig Institute. Chemical Pathology was transferred from the Courtauld Building to the Windeyer Building and Biochemistry went to the UCL site. All of these highly complex movements of staff and equipment together with necessary space refurbishment have been achieved smoothly, with speed and largely to schedule. Capital-in-recurrent grants from the Court of the University have greatly facilitated the reorganization and what seemed to many an impossible project has been achieved by excellent co-operation between the various heads of departments involved working together with the staff of the Bursar's Department. Plans emanating from the Briefing Group on sites have been skilfully executed by Mr A. A. Peters, Assistant Bursar. The results so far leave no one in doubt about the commitment to achieve true physical unification of the constituent parts of the UCMSM.

Work is now well advanced on plans for reorganization and unification of departments in the Faculty of Clinical Sciences. Extension of the accommodation for the single Department of Obstetrics and Gynaecology in Chenies Mews should be completed early in 1988. A Clinical Project Definition consisting of submissions for works in Chemical Pathology, Medical Physics, Computer Sciences and Workshops, Haematology, Microbiology, Histopathology and Administration has been sent to the Court for transmission to the UGC. The Clinical resiting programme is directly related to and consequential upon the resiting of Basic Medical Sciences which has already occurred and so it is hoped that a rapid decision from the UGC will permit uninterrupted progress with site unification.

Agreement has been reached to transfer some Medical Physics staff from the MHMS Department to other departments in the School while others will move to the UCL Department in Shropshire House when suitable accommodation has been prepared. These changes are urgent because the MHMS Department of Medical Physics is currently occupying space in the Windeyer Building needed to complete the movement of Chemical Pathology to that location.

Bloomsbury Health Authority has assumed responsibility for the production of plans to unify the Department of Histopathology in the School of Pathology on the Middlesex site and Medical Microbiology in the Windeyer Building. The School and District still plan to centralize Haematology on the UCH site.

Although siting of the Administration of the School is still at the planning stage, the structure is now established and the Deanery 'teams' in both Faculties are in full action. The 'informal' balance between former UCL and MHMS staff has been preserved in creating the new Administration. The final home of a unified Administration remains under discussion, but the plan for a first stage is to move all Faculty of Clinical Sciences administration to the Bland-Sutton Building on the Middlesex site.

Dental School

The Dental School was visited by the UGC Dental Education Sub-Committee in February 1987 as part of a national review of the provisions for Dental education. The Sub-Committee visited clinical, teaching and laboratory areas as well as meeting groups of students, School and NHS consultant staff and Heads of Department. The Sub-Committee noted the high morale within the School despite its acute space problems. A victim of its own success, the Dental School has attracted so much research funding from external sources that there is pressure on space for the research teams. The UGC Sub-Committee's report is expected in 1988.

This report cannot be a comprehensive review of activities within UCMSM during the year. An attempt has been made to highlight the major activities in a continuing programme of reorganization and development. Much has been achieved against a background of severe financial cuts in UGC, NHS and research council funding.

In April 1987 the School hosted a visit by the Sub-Committee of the House of Lords Select Committee on Science and Technology who were keen to discover more about priorities in medical research with particular reference to the NHS. The opportunity was used to present a selection of NHS-related research currently being undertaken in the School including those in the Molecular Biology Unit, the AIDS ward at The Middlesex Hospital and Neonatal Unit at UCH. A follow-up to the visit was made in a written submission to the Sub-Committee.

In addition to activities on the Bloomsbury sites, academic developments in Islington have been the subject of a working party chaired by Professor S. J. G. Semple, Head of the Department of Medicine. The report of the working party was completed in mid-1987 and will form the basis of a plan for academic developments in the Islington District.

The School looks forward with confidence to new and exciting academic developments and to continuing progress with the physical unification of departments within the School. However, the next two years are likely to see some of the most severe savings programmes yet experienced and it is likely that hard decisions will need to be made.

UNIVERSITY OF LONDON REVIEW OF THE FACULTY OF ARTS

In December 1986 a committee of College Deans of Arts and representatives of other institutions was set up under the chairmanship of the University Dean (Professor S. Greenbaum, who is also Vice-Dean of Arts at UCL) to consider the present and future state of Arts subjects in the University, in the light of lower government funding and imminent reviews of particular subjects by the UGC. Eight Colleges (Schools) were represented, together with nine Senate Institutes and several other institutions. All of the departments in the College's Arts Faculty fell within the scope of the Committee's enquiries except Anthropology, Economics and Geography.

By April the Committee had produced a comprehensive report based on submissions to it primarily at subject level, but also from individual institutions and Faculties. Circumstances differed between areas, but in general the Committee was concerned to urge (a) the protection of small

subjects of rarity value, or national importance, which are taught often uniquely in London; (b) greater co-operation and collaboration between teaching departments both in the same College and between different Colleges (following in the latter the example of certain subjects where this co-operation already exists to a high degree); (c) possible rationalization in certain cases of the distribution of subject areas across the University.

Of particular interest to the College were recommendations on the following subjects:

the sharing of space between Birkbeck College and neighbouring institutions and co-operation in intercollegiate teaching;

a realignment of the Archaeology Departments at UCL in the light of the merger with the Institute of Archaeology;

concentration of the teaching of single subject and combined studies in Classics in the three strong Departments at King's, Royal Holloway and Bedford New College, and UCL;

increased co-operation in the field of conservation between the School of Library, Archive and Information Studies and the Institute of Archaeology;

the transfer of the Department of Applied Linguistics at Birkbeck College to UCL or the Institute of Education;

the desirability of filling Chairs in Philosophy, particularly the Grote Chair of Philosophy of Mind and Logic at UCL.

Discussions on some of these topics are already in hand.

COLLABORATION WITH BIRKBECK COLLEGE GEOLOGICAL SCIENCES

As part of the University's programme of the rationalization of science provision on five sites the merger of the Queen Mary College Geology Department with the UCL Department of Geology on the UCL site was completed in 1983. This merger involved the understanding that the Geology Department of Birkbeck College would work closely with the new Department of Geological Sciences at UCL. The distance of a mile to the Gresse Street site where the Birkbeck Department is located proved to be an obstacle to achieving this. The Hayhoe report on Birkbeck College

proposed the closure of the Gresse Street site and it is proposed that the UCL Geological Sciences Department's Geochemistry Laboratory be transferred to the Birkbeck Chemistry Department. By making structural changes within the UCL Department, a scheme has been evolved that allows all the Birkbeck Geology staff to be accommodated with the UCL Department and all Birkbeck Geology teaching and research to be carried out in the UCL Geological Sciences laboratories. This co-location of the two departments is planned to be completed by the end of September 1988. This last stage in reorganization of the Geological Sciences in the University of London will create on the UCL site a well-balanced grouping of experimental, field and theoretical research workers who by pooling their resources can make more effective use of the buildings and equipment for both day-time and evening teaching and for research.

HISPANIC STUDIES IN BLOOMSBURY

In January 1987 the UGC issued the report of its Working Party in Hispanic Studies throughout the country and institutions were invited to respond in terms of the action which was proposed in the light of the report. The major recommendations of the report involve a reduction in staff from 180 to 160 and in departments from 39 to 28 over the country as a whole. In London the present six departments would be reduced to two or three, one of which was to be 'in Bloomsbury'.

The College's policy in Hispanic Studies has been to concentrate on the undergraduate degree in Modern Iberian and Latin American Regional Studies (MILARS) to which various departments including the Departments of History and Geography contribute. It appears that future developments in the subject in the University of London are intended to lead to, among other things, a Bloomsbury centre in Hispanic Studies composed of the UCL Department in association with the Birkbeck College Department. A joint UCL/Birkbeck Working Party was set up following the publication of this report and in June 1987 the UCL Department of Spanish and Latin American Studies reached an agreement with Birkbeck College Spanish Department to establish a consortium with the aim of achieving rationalization in the field of Hispanic Studies in the Bloomsbury area.

The Consortium will function under a Co-ordinator, from either Department, who will also chair regular meetings of members of staff from both Departments. The Co-ordinator for 1987-88 will be Dr A. Garcia, Head of the UCL Department of Spanish and Latin American Studies.

An important aim of the Consortium will be to create new collaborative arrangements, and maintain and strengthen those which already exist, with a view to enhancing the research and teaching profile of both Departments. It is also expected that there will be pooling of resources and sharing of facilities in the field of library provision.

The Consortium accords with UCL general policy of increased academic collaboration with Birkbeck and with the policy of UCL Academic Planning Committee on Hispanic Studies, as well as with both general and specific policy statements contained in the Hayhoe Report (*Birkbeck College: A New Structure*). Further, it agrees with the view of London Hispanists that a major unit of Hispanic Studies should exist in the Bloomsbury area, and implements the important recommendations set out in the UGC Working Party Report.

AGREEMENT WITH THE HEBREW UNIVERSITY OF JERUSALEM

The College has concluded an agreement with the Hebrew University of Jerusalem to foster co-operation in providing facilities for the teaching and study of Hebrew and Jewish Studies and to promote the exchange of scholars and students between the two institutions. Under its terms the Hebrew University sends to the College each academic year a Visiting Professor of Hebrew and Jewish Studies, to be known as the Goldsmid Visiting Professor, for one or two semesters. The first Professor is the distinguished scholar Professor Jonathan Frankel. Other visiting staff from the Hebrew University will be employed in the Department of Hebrew and Jewish Studies. One particular benefit of the scheme is that students on the four-year undergraduate degree course in Hebrew and Jewish Studies will be enabled to spend one year of their course at the Hebrew University.

THE BENTHAM PROJECT

Approval has been given by the College to a proposal submitted by the Bentham Project, which is devoted to editing and publishing the works of Jeremy Bentham (1748-1832) in conjunction with the Department of History and the Faculty of Laws, designed to ensure continuity of editorial expertise on the new edition of the *Collected Works of Jeremy Bentham*. This welcome development will involve an expanding teaching role for staff attached to the Project. A new MA course in Legal and Political Theory will be launched in October 1988 and postgraduate students will be actively encouraged to pursue research on Bentham and his period.

'PROTECTION' OF DUTCH AND SCANDINAVIAN STUDIES

The College has one of the only two Departments of Scandinavian Studies and the only Department of Dutch in the country (although there are courses in these subjects at other institutions), and the Departments both benefit greatly from the long-established support of the governments of the Scandinavian countries and of Belgium and Holland respectively. Recently, the University Grants Committee has given the College clear indication that it places particular value on these Departments and has formally expressed the wish that the University and the College should afford them special protection. The College has, in response, requested that the UGC be asked to identify the costs of these Departments as special factors in their formula for the distribution of recurrent grant.

UNIVERSITY OF LONDON: ACADEMIC INITIATIVES

The University again invited Schools to submit applications for supplementary grant to fund academic initiatives from 1986-87 onwards. The total sum of money available for the University as a whole was £500,000, and it was indicated that first priority would be given to implementation of the recommendations of the Working Party on Biological Sciences and that special consideration would be given to 'the needs of the humanities and of small subject areas especially in the context of restructuring policies'. A Sub-Committee of the Academic Planning Committee gave detailed consideration to a wide range of bids and selected 12 for approval by the Academic Board Executive Committee (Exco). Exco agreed that 14 proposals be submitted to the University, including two from the Joint School of Medicine, and joint proposals with the London Hospital Medical College and with Birkbeck College. The following proposals were approved by the Court of the University:

UCL

(i) £17,000 for a Lectureship in Information Studies in the School of Library, Archive and Information Studies to develop teaching in the field of information management;

(ii) £17,000 for a Lectureship in Geoarchaeology in the Institute of Archaeology to promote the integrative development of research and teaching in geoarchaeology and recent earth history in the Departments of Human Environment, Geography and Geological Sciences.

(iii) £25,000 for a Readership in Communications and Information Law and Policy to head an interdisciplinary Centre of Communications and Information Law and Policy whose purpose is to conduct research into the legal and regulatory framework arising from modern communications and information technology.

UCL and The London Hospital Medical College

(iv) £21,000 for a Lectureship in Materials Science in Dentistry to strengthen the work of the joint Sub-Department in that field.

UCL and The Middlesex Hospital Medical School

(v) £17,000 for a Lectureship in Drug and Alcohol Dependency to promote biological and clinical research in these fields in the Departments of Psychiatry and Clinical Pharmacology.

(vi) £17,000 for a Lectureship in Sexually Transmitted Diseases in the Department of Genito-Urinary Medicine to handle statistical data generated by research in this field and to initiate research based on mathematical models.

UCL and Birkbeck College

(vii) £25,000 for a Readership in Mineral Physics in the Departments of Geological Sciences at UCL and of Geology at Birkbeck College to establish an active teaching and research programme in this area.

(viii) £17,000 for a Lectureship in the Department of History of Art for an Arts-based computer scientist specializing in computerised imaging.

JAPANESE LAW INITIATIVE

In April 1987 it was announced that 25 major Japanese companies had provided about £800,000 to establish a Chair in Japanese Law and related activities at University College London. The purpose of the contribution is to permit the study of Japanese Law of all kinds, but particularly the study of Japanese Commercial Law, especially trade and banking regulation.

At the ceremony to mark the new programme the Provost, Sir James Lighthill, with Sir Peter Parker (an initial supporter of the programme) noted that whereas in the United States of America about five universities had advanced programmes in Japanese Law, the Univesity College London programme would be the first in the United Kingdom. Lawyers were noting that increasingly contracts with Japanese firms were being governed by

Japanese Law, and how necessary it was for British lawyers to be familiar with the culture, procedures and substance of Japanese legal practice.

University College London was considered an ideal location for this new development because of its strong links with legal, commercial, governmental and City of London institutions, and, a fact less well known, because of its historic links with Japan.

In the early 1860s a number of young Japanese noblemen escaped from Shogun Japan and came to England, where they were received and educated at University College London. They later returned to Japan, now under its democratic Meiji dynasty, where they were influential in government and science.

The famous British diplomat, Sir Ernest Satow, was a law student at University College London in the 1860s. Satow's first diplomatic post was in Japan, where he made an important contribution to the Meiji government. He maintained his links with Japan throughout his life, and his name is well known in Japan today.

Although much Japanese Law is based on German Law (adopted in the late nineteenth century), shipping, insurance and trade law are based on English Law.

It is intended that the Chair be filled initially by a Japanese. The programme will concentrate not only upon training students in Japanese Law, but also on running conferences for practitioners. A first such conference was held over five afternoons in September 1987 and a second will be held in September 1988. It is hoped too that the programme will provide a bridge between Japanese and British legal, commercial and industrial interests.

THE PHILIPS CENTRE FOR LIGHTING EDUCATION AND RESEARCH

In January it was formally announced that Philips Lighting International had generously provided financial help for the setting-up of a Centre for Lighting Education and Research at the Bartlett School of Architecture and Planning. As part of the work of the Centre a new MSc course, specializing in light and lighting, has been planned to start in October 1987. The course is unique, certainly in Great Britain, in that it approaches the subject of light and lighting in a holistic way, considering the human, architectural and technological aspects of the subject.

It is intended that the Centre will also act as a focus for encouraging additional lighting research.

WORKING PARTY ON THE DEVELOPMENT PLANNING UNIT

In 1985 the Academic Planning Committee set up a Working Party to examine the future academic, administrative, financial and siting arrangements for the Development Planning Unit. The Unit originally began in the 1950s within the Architectural Association School of Architecture, and joined the School of Environmental Studies at UCL in 1971. It was funded by student fees and grants from the Overseas Development Administration, the Nuffield Foundation, the Ford Foundation, the Leverhulme Trust and the College. Since the 1970s it has operated on a basis whereby it is expected to be self-financing. The Working Party examined the academic and financial viability of the Unit with a view to the establishment of arrangements that would secure its future on a long-term basis. An interim Report was approved in the spring of 1986 pending a review of the financial position in the autumn. In its Final Report the Working Party endorsed an earlier recommendation that the Unit should continue as a self-financing unit on a long-term basis in the light of plans to establish the financial stability of the Unit, and proposed the setting up of a Committee of Management, now in being, under the chairmanship of Sir Henry Phillips, to oversee the policy and progress of the Unit.

INSTITUTE OF ARCHAEOLOGY: CONSERVATION CENTRE APPEAL

The implementation of a plan to establish a new Conservation Centre within the College continued to be a high priority. To coincide with the Jubilee of the Institute in 1987, a development fund has been established to cover the cost of providing a new building, since only by acquiring more space and improving its facilities can the Institute strengthen and develop an aspect of its scientific work for which there is an ever-increasing demand. A Development Director has been appointed to co-ordinate the fund-raising activities, and the College has undertaken to provide a suitable site subject to the necessary finance for the building being raised.

The aim of the development is to improve the teaching and research facilities of the Department of Archaeological Conservation and Materials Science, and at the same time to make the new Centre's facilities and manpower available to museums, archaeological units, and organizations in the private sector, providing advice, undertaking service conservation work, and offering analytical and other techniques, not available through existing

commercial conservation services. The Centre will provide a comprehensive conservation library and information service on conservation and the technology and properties of ancient and modern materials. Artifact conservation will be carried out as at present, in the context of the training of conservators, and as a commercial service. Analysis and other investigative procedures will be offered as an ancillary to conservation and as an aid to authenticity determination, for example the analysis of metals and corrosion products, and artists' pigments.

MONITORING RESEARCH SELECTIVITY

The University Grants Committee has undertaken to report annually to Ministers on universities' arrangements for drawing up and carrying out plans for the selective distribution of the resources they devote to research, and in March the University of London asked the College to submit details of its mechanisms for the selective distribution of resources for research, of the ways in which selectivity in research funding is expressed, of plans for implementing selectivity which do not involve shifts in resources between departments, and of difficulties foreseen in implementing research selectivity. The College responded positively to this request drawing attention to the resource allocation functions of the Academic Planning Committee, the Academic Appointments and Promotions Committee, the Departmental Grants Committee and the Planning and Buildings Committee, as well as to the long established formula approach to allocation of departmental resources. Numerous examples of selective research support which the College has given and received were cited. While recognizing the policy of selective research support, the College at the same time underlined its own overall policy of maintaining academic balance across all its Faculties.

GENERAL REVIEW OF COLLEGE FINANCES FOR THE YEAR

The Court Block Recurrent Grant to the College was not announced until July 1986, just one month before the beginning of the financial year. The total sum received was £33,561,509. Although the initial grant represented a cash increase of 2.7 per cent over that of the previous year against an average increase for London as a whole of only 1.6 per cent, it was still a cut in real terms of about 4 per cent after national pay awards were met and inflation, over which the College has no control, had been taken into account.

This latest cut meant that the real value of the 1986-87 Grant was only 71 per cent of that for 1978-79. The cut would have been very much greater in 1986-87 but for the College's high research ratings in the assessment of the UGC which brought financial reward within the Court Grant.

However, the College had anticipated the cuts in full and had set New Earnings and Savings Targets (NEST) of £1m to be achieved during the year. As a result, the final outturn for the year was a modest surplus of £92,270; however, this was achieved with the help of profits on sales of investments of £812,453 which cannot be repeated in 1987-88, and in consequence increased NEST targets are now necessary to ensure that the College achieves financial equilibrium on an ongoing basis.

Further substantial increases in fee income from overseas students constituted the most substantial contribution to NEST targets in 1986-87 and this helped to ease the pressure on staff savings. The College intends to continue its efforts to attract such students in the future but will do so only within academic parameters determined by Council, both as to quality and numbers. Similarly, the College must avoid too heavy a dependence on this source of income from a financial viewpoint.

Once again the College more than made up for the reduction in UGC income in real terms by increases in the value of new Research Grants and Contracts won. These increased by 10 per cent in 1986-87 to £18,794,696 to put the College at the top of the table of university institutions in this respect.

The Court's annual Equipment and Furniture Grant to the College increased by 2 per cent over 1985-86 to £2,325,200 despite a slight reduction in the total available for distribution within London as a whole. This improvement can be attributed to the policy of rewarding Schools and Colleges for attracting Research Grants by increasing their share of UGC-derived resources. Further reward for excellence in research was attracted by special additional UGC Scientific equipment grants allocated to those Cost Centres rated as outstanding. The College received a total of £525,000, well above the national average.

In the area of Buildings finance, the total awarded by the UGC for pre-clinical schemes relating to the creation of the University College and Middlesex School of Medicine reached £2m during the year, and the College is now in the process of preparing its major Clinical bid. There was a national recognition that the Government cuts imposed during the 1980s had caused a serious neglect of essential Building repairs during the period and special Repairs grants were announced by the UGC of which the UCL/Middlesex share was £600k.

Further advances were made in the trend toward making the College's trading areas increasingly self-reliant. This was exemplified by the Refectory receiving a loan, rather than a grant, of £100k to finance major refurbishments which, it is intended, will be repaid from the additional business generated.

The Annual Accounts for 1986-87 represent the last before the merger with The Middlesex Hospital Medical School and the Postgraduate Institutes of Laryngology and Otology, Orthopaedics, and Urology.

Next year's Accounts will subsume the increased activity generated by the newly created University College and Middlesex School of Medicine.

There is no doubt that 1987-88 will be an extremely difficult one financially, determined as the College is to achieve at least a 'break-even' position on the year's working despite a further cut in UGC resources in real terms. This will demand a substantial further reduction in payroll costs and a number of measures are being adopted to achieve this, including a renewed drive for more early retirements under the various College schemes with assistance towards the cost from the UGC.

SITES AND BUILDINGS

The major building activity in the last year has been the continued programme of conversion works involved in the transfer of pre-clinical teaching from The Middlesex Hospital Medical School to the UCL site and the transfer of clinical and service departments in the opposite direction (see also Developments towards the formation of the UCMSM of UCL pages 30-34).

The crash programme to vacate the Courtauld Building in Riding House Street by 1 October 1986 was completed on time involving the hurried move of The MHMS Departments of Chemical Pathology and parts of Physiology and Biochemistry into the Windeyer Building and into UCL's clinical and pre-clinical buildings. The impetus of these moves has been maintained with a continuing series of interlocked schemes of conversion.

It is intended that all pre-clinical teaching will be moved to the Gower Street area by October 1987 with the exception of Topographical Anatomy. A contract, funded by the UGC, for the conversion of the former UCHMS Refectory into an Anatomy dissection laboratory has started and will be ready to receive students in 1988. A separate contract related to but not part of the resiting programme has also started which will produce improved and enlarged accommodation for Obstetrics and Gynaecology.

The moves of clinical and service departments to the Middlesex area is in line with NHS policy of concentrating pathology services in The Middlesex Hospital. Design work has now started, jointly with the Hospital, on schemes for relocating the main Pathology Departments from the Bloomsbury District into The Middlesex Hospital area.

Apart from the major concentration of efforts and resources on the resiting programme for the University College and Middlesex School of Medicine, a number of useful additions and improvements have been made elsewhere.

The largest of these additions, referred to last year, is the construction of another floor on the New Engineering Building. The erection of a light-weight structure at such a height created many problems, but the new space is now complete and in use. This valuable addition was made possible by a benefaction from GEC.

The third and final phase of Ramsay Hall now fills the last gap of the block the design of which (by the same architect) dates from the late 1940s when the first building, the Indian Students Hostel, was built on the corner of Grafton Way and Fitzroy Street. Since that time the remainder of this block has been acquired and developed by UCL. This final stage was made possible by a benefaction from the Anonymous Donor. The refurbishment of Gordon House, first referred to in the Report for 1985-86, in Gordon Street was completed during the year and occupied by the Departments of Latin and Greek and the Birkbeck Chemistry Department.

Other improvements during the year include the creation of a new shop and snooker room for student use in the Central Collegiate Building where the little-used rowing tank has been converted into a space which can now be used for a variety of purposes.

The conversion of the southern half of the top floor of the Main Building is now complete. The History Library from Gordon Square and the Collection of the Royal Historical Society from the DMS Watson Building were moved in and will be fully operational as part of the Main Library by the start of the next session. The Old Refectory is undergoing a major redecoration and refurbishment which will include remodelling the servery area sited under the Portico podium.

Looking to the future, an architectural study has been commissioned to produce proposals for redeveloping the site in the area between 26 Gordon Square the Bloomsbury Theatre and the Cloisters. The architect's brief contains requirements for housing the Advanced Centre for Biochemical Engineering including a sophisticated pilot plant facility. It is also hoped to provide space for a Conservation Centre for Archaeology and some much needed space for the Students' Union in the same development.

STAFF TRAINING AND DEVELOPMENT

This year has seen increased interest in training and staff development amongst all groups of staff. This is a result of the necessity to enhance institutional and individual staff effectiveness; the wider variety of courses offered, particularly, for example, on financial planning, promotional activities, and management methods; and the regular and widespread publicising of such events.

In pursuance of its aim to develop the professional abilities of academic and research staff the Sub-Committee for Academic Staff Training has introduced a number of new topics, such as time management and research projects, into its course programme. For non-academic staff courses within the College have covered areas such as management and supervisory skills, staff appraisal, financial administration and reception skills.

It is expected that there will be increased demand for new training courses, with appraisal and performance indicators and the use of micro-computers in administration being particularly prominent interests.

THE ADMINISTRATION

In the session 1986-87 the College's Administration faced the continuing challenge of an increased workload to be accomplished with reduced staff resources. The merger and integration of the Institute of Archaeology with the College having been successfully achieved as from 1 August 1986, the Administrative Divisions were heavily engaged in the task of unifying the administrative operations of the College, The Middlesex Hospital Medical School and the Postgraduate Institutes of Laryngology and Otology, Orthopaedics, and Urology so that, although the UCL Bill to effect legal unification would not be passed by 1 August 1987, the institutions could as far as was practicable operate as if unified from that date. The staff of all the Divisions, as well as their colleagues in the merging institutions, are to be congratulated on the progress achieved across the whole range of administrative functions.

Each of the Administrative Divisions has undertaken new and more varied tasks and initiatives during the session, in addition to the formation of The University College and Middlesex School of Medicine, a number of which have enhanced the effectiveness of the Administration and of its services to the College. The General Division has been concerned with a major

improvement of the Old Refectory and its servery, while the accommodation of the College Office and Reprographic Services has been expanded and refurbished. The Registrar's Division arranged a substantial relocation of its staff in order to achieve more effective working conditions and more efficient operation. At the same time a phased transition to computerised operations in the area of fee invoicing (and ultimately, it is hoped, student records) independent of the University's Senate House, together with the development of an on-line UCCA admissions system, was in progress. The Finance Division has also been concerned with the development of new computer systems and the delegation of responsibilities from the University. The merger of the Institute of Archaeology and the resiting programme of the University College and Middlesex School of Medicine have presented the Bursar's Department with a much enlarged estate to manage, a considerable part of it being away from the main College Rectangle.

It is a tribute to all the staff concerned that these major increases in responsibility have been accommodated generally smoothly, and it is a good augury for the continued future harmonious working of the Administration.

REPORT OF THE WORKING PARTIES ON AUDIO VISUAL AND PHOTOGRAPHIC AND ILLUSTRATION AND ASSOCIATED SERVICES

In the present session a final report has been produced bringing together the work of three Working Parties reviewing the areas of audio visual, photographic and illustration, and computer graphics services. The working parties were concerned to provide not only an overview of the existing facilities but also a basis for future development following on the establishment of The University College and Middlesex School of Medicine of University College London, and the future inclusion of the Postgraduate Institutes of Orthopaedics, Urology, and Laryngology and Otology, and the Institute of Archaeology, which is already part of the College.

Visits by members of the working parties were made both to all of the organizations concerned, and in addition to the University of Newcastle upon Tyne, the University of Manchester, Charing Cross Hospital, and Westminster Hospital. Questionnaires were circulated as widely as possible within the College and The Middlesex Hospital Medical School to collect factual information and opinions on the service required.

The review provides a thorough survey of the present range of activities, services available, equipment, and personnel employed in these services.

A financial analysis of costs in the original service and the restructuring proposals was provided. The Report ended with recommendations regarding both the immediate and the long-term future developments which are necessary for the future organization to operate efficiently.

It is stressed that the services involved are vital for the common welfare of all teaching and research activities, and that they will assume a major role in regard to our external relations with other universities, with government, and with the public in general. The need for adequate space for this essential service was explained and radical proposals for the day-to-day management of combined activities involving different areas were proposed so as to provide long-term economy but enhanced activity.

A new Director of Audio Visual Services, Dr D. G. Jameson, and a new Director of Photographic and Illustration Services, Mr R. R. Phillips, have been appointed, and a new AVPIM Services Panel is beginning to operate.

These developments are based on the evolution of existing facilities and the introduction of quite new interactive facilities with the use of interactive video disk teaching systems and interactive multi-channel video conferencing using intercollegiate optic fibre links - LiveNet.

LIBRARY

A perusal of the Minutes of the Library Committee in session 1986-87 reveals the combination of problems and new ventures which characterises university life today. The problems stem largely from the financial situation, and they reveal themselves in the form of resources stretched to breaking point. In spite of the relative strength of the pound against the dollar, periodical subscriptions continued to rise at a rate higher than average inflation, and the weakness of the pound against several key European currencies, particularly the deutschmark, reduced the number of foreign language monographs that could be purchased. One encouraging sign early in the session was that the particular difficulties experienced by university libraries were recognised by the Secretary of State for Education and Science in making available a supplementary grant for the purchase of books and periodicals. This was distributed by the University Grants Committee, and, ironically, news of University College Library's share of this very welcome grant reached us at the same time as news of a further round of savings targets made necessary by the general squeeze upon university finances. The College Finance Committee has responded to this situation as sympathetically as it is able to do in the very difficult general financial situation it faces.

Fortunately the promise and hope inherent in the new venture is there to balance the concern over the problems. Much of the Library Committee's time during the past session was devoted to progress towards a new automated system, building upon the success of the Library's existing automated systems, but integrating the databases and making them much more accessible to users of the Library. On-line access, including access from remote terminals, is the key feature of the LIBERTAS system for which funds have now been approved and which it is hoped to install in the second half of 1988. Another major venture, actually completed during the session under review, was the move of the History Library from Gordon Square and the Royal Historical Society Library from the DMS Watson Building to the second floor of the Main Building where the historians will have the advantage of longer opening hours and easy passage from the other humanities collections in the Main Library. This move brought knock-on benefits to other Library users. The Mocatta Library is now joined physically to the Main Library and therefore open for very much longer hours. The re-location of the Royal Historical Society Library enabled a very pleasant reading room to be released for users of manuscripts and rare books, and also made possible the creation of the Science Reference Room, which it is hoped will be a focal point for science enquiries.

These moves were in addition to the ongoing re-arrangement of periodicals in the Science Library in order to make a more logical arrangement and in order to make the best use of restricted space. It should not go unnoticed that whereas the University Grants Committee regard a library as being full when the shelves are 85 per cent occupied, the shelves of University College Library are 91 per cent occupied, and it is difficult to estimate the extra time involved for Library staff in keeping books tidy and for readers in finding books due to the overcrowded situation.

At least the overcrowded shelves are, in the case of University College, a sign of the richness of the Library's collections and their value to academic research. Exhibitions mounted in the Flaxman Gallery are often indicative of the strengths in the College's academic life and in its Library. It was a pleasure to be able to mount an exhibition of rare books and manuscripts in co-operation with the Italian Department on the occasion of the Barlow Lecture on Dante. Another major exhibition came on loan from the Brynmor Jones Library, University of Hull, where the subject of the exhibition, Philip Larkin, had been Librarian. Organized in co-operation with the Poetry Society, this exhibition attracted visits from many distinguished people, including the Secretary of State for Education and Science. The exhibition also led to a Poetry Reading and Jazz Concert in the Donaldson Library, a superb setting for an event also graced by several famous names.

The session also embraced a considerable amount of new activity in relation to University College's new partners. Although the Institute of Archaeology Library will remain separate physically for the foreseeable future, common procedures will have to be developed and the Library Committee took an important step in this direction in establishing a working party to consider the staffing structure in the Institute of Archaeology Library. Very good progress, even in advance of the formal establishment of the Joint School of Medicine, has been made in co-operation between the University College Medical Library, the Clinical Sciences Library and the Boldero Library at The Middlesex. The promise of that new venture is already bearing fruit in releasing funds for new periodical subscriptions by eliminating duplication. It is clear already that the enlarged Medical Libraries Sub-Committee will perform a very valuable role in promoting co-operation.

One statistic worthy of comment is the number of on-line information searches, which has risen by 87 per cent in three years. Numerically the number of searches is not great, but they are labour intensive, some taking several hours of the member of Library staff undertaking the search. The growing popularity of on-line searches may indicate a need for users to be provided with information processed in a form ready to use, and the interest being shown by database producers in the compact disc format may lead to such information being available in a more readily-accessible form. Another new technology with great promise for the future delivery of information is facsimile transmission which may make available to users on various sites photocopies from a journal held only on one site. The Science Library was chosen by the British Library to act as a trial site for the facsimile transmission of articles held at Boston Spa, as part of a research project awarded to the College's Computer Science Department.

The first minute of the Library Committee for the session was one agreed with strong sentiment on the part of those who had known and respected Joe Scott. The minute reads: 'The Committee noted with regret the death on 4 August 1986 of Mr J. W. Scott, Librarian of the College from 1954 to 1982, and paid tribute to his achievements in building up the College's collections.' A memorial service, attended by Mrs Elizabeth Scott and many friends of Joe Scott, was held on 12 December 1986. Joe Scott believed strongly in the integration of Library staff into the life of the College and he would have concurred with the present Librarian's acknowledgement of the work of the Library staff — too many to mention by name — in providing a service to members of the College within the difficult contraints of space and funding which they face day by day.

COMPUTER CENTRE

Some three years ago the Computer Centre became an important partner in the College's scheme to provide word processors for departments. At that time the equipment chosen was the Victor 'Sirius' using the 'Scientex' software package. In all, about 90 such systems were installed. In the autumn of 1986 the College and the Centre reviewed this policy in the light of technological changes and in December 1986 the 'Opus' IBM-compatible microprocessor was selected as the current best buy, with WordPerfect as its driving software. This has been extremely popular and by the end of the session over 350 systems had been installed. The Centre gives support to departments, including training and maintenance of equipment.

There are two issues that have dominated computing activities during the session, the start of planning for the system to replace EUCLID in 1989 and the McMullen Report on the reorganization of the University's computing. These two have become inextricably linked. Among other things the McMullen Report proposed the grouping of colleges around 'co-ordinating centres': UCL was to be one of these, to provide services principally for Birkbeck and LSHTM. This proposal was readily accepted by the College and the other two Schools, with the Institute of Education also opting to join the Bloomsbury cluster. Less welcome and much more controversial were the Report's proposals for distribution of the Court's recurrent grants for computing. The College was asked to provide additional services and receive a much reduced Court grant. The financial aspects of the Report are still under discussion and it will take some time to resolve them. The forward planning, on the other hand, has acquired a new vitality with exciting prospects of new systems for Bloomsbury and not merely the College. One of the first results of the co-operation with Birkbeck and LSHTM has been an agreement in principle to aim for a joint procurement. An important feature of the new computing system, whatever it may turn out to be, will be a very high speed local area network at speeds of 100 Mbits/sec. It is intended to have a complete Operational Requirement available by the end of 1987, with installation of new equipment towards the end of the 1988-89 session.

ACADEMIC SERVICES UNIT

The Academic Services Unit (ASU) was established in 1978 following the recommendations of a College Working Party. The objectives of this initiative were, firstly, to generate additional funds for the College and its departments,

and secondly to help staff apply their expertise to current problems in industry, the professions and government. The Unit aimed to be self-financing and was established with College funds for an initial trial period of three years. The types of work handled by the ASU included advisory services, applied research and development contracts, prototype design, software sales, the patenting, licensing and exploitation of College inventions and the administration of short professional up-dating courses. The ASU is the College's point of contact for organizations, particularly in the private sector, wishing to gain access to the skills and expertise of staff and the College's specialist equipment and facilities. Since the establishment of the ASU, the volume of activities has been increasing steadily and currently the financial turnover of the Unit is approximately £2.5m. Overheads and surpluses generated through project work are divided between the departments involved and College, and, from the College's share, the running costs of the Unit are met. The self-financing position of the Unit was achieved by the end of the 1983/84 financial year by which time the pump-priming advance from the College had been entirely repaid. Since this time a genuine surplus has been generated each year for the College Fund, intended for use in the promotion of innovative activities and distributed at the discretion of the Provost.

In the 1986-87 financial year a number of major changes have occurred within the ASU. Firstly, the creation of an additional post within the ASU, the Application Officer, was approved by Council in June 1987. This additional post is needed to cope with the rapid increase in project and licensing activity. In addition, a grant of £22,000 was received from the Department of Education and Science for the creation of a new post in the ASU to develop further the ASU's provision of administrative support for professional up-dating courses. With these two new appointments, the number of principal posts will have increased to five in the forthcoming year.

The 1986-87 academic year represented the first operation of a new right acquired from the Research Councils for the College to retain ownership of inventions made under Research Council funding and to take responsibility for their exploitation in the national interest. This arrangement replaces the situation where BTG had the monopoly over such inventions. The entire revenue generated from such exploitation can now be retained by College and is distributed between the inventors, their departments and the College in accordance with the Financial Regulations.

Another new initiative agreed during the session was for the College to retain, through ASU, a team of specialists to investigate ways of boosting the level of funding from EEC sources, particularly for research, exchanges, visits and training. The consultants, CERES, will undertake a pilot study

in the Autumn Term 1987-88 and it is hoped that their study will highlight new sources of income for the College.

While the direct financial benefits of the ASU are clear, the potential indirect benefits of the Unit's work are at least as important. Within the College the ASU serves as a catalyst to accelerate developments, particularly those of an inter-departmental nature. The Unit can help extend and advertise the important contributions that academic staff make to short-term problem solving in industry, commerce and government as well as to the provision of ideas which may form a new generation of products. Experience gained from industrial contacts can enrich undergraduate and postgraduate teaching and such links may also provide opportunities for students to gain valuable first-hand experience of industrial technological problems and working conditions. The ASU's role is to facilitate and promote this kind of activity and to seek to optimise the benefits arising to the College, its staff and departments. With the new posts created, the Unit aims to provide an improved service in the 1987-88 session to members of staff and clients alike and hopes to see a further increase in both income and profits generated.

FOREIGN STUDY OFFICE

The growing importance of overseas students to the College was recognised during the year by the establishment of the Foreign Study Office through the appointment of a Director and a Secretary. The Director is responsible to the Committee for the Recruitment of Overseas Students whose terms of reference were changed at the beginning of the academic year to reflect the aims in establishing the Foreign Study Office. The Office is unusual in that, as well as being involved in the promotion of the College overseas and in the recruitment of overseas students, it also offers advice and expertise to overseas students already in the College. Further, it is unique in giving advice to UCL students on where to study abroad.

The Office has helped organize or finance visits by College representatives to Australia, Cyprus, Hong Kong, Indonesia, Korea, Malaysia, Singapore, Switzerland and the USA. These have involved both academic and administrative staff as well as the Director himself. The VCR for overseas students *London Views* has been distributed to British Council offices throughout the world with a 'Western' version being sent to selected US universities and colleges. During the year, mailing lists for the undergraduate and postgraduate prospectuses and the non-degree booklet have been updated and expanded. A new Guide for Overseas Students is planned for 1987-88 as is a Study Abroad Guide and Course Lists for the North American market.

The Office is now the first point of contact for non-degree applications, the vast majority of which are from American students who wish to spend one academic year or part of a year at UCL gaining credit acceptable to their home institutions. During the year the Office has concluded three further agreements with US institutions with regard to this type of student; these are: Brandeis University, Lehigh University and Mount Holyoke College. Agreements which involve the exchange of students have been signed with the University of Copenhagen, University of Vienna, University of Guadalajara and the Collegio de Michoacan, Mexico. Six graduates from UCL were awarded internal scholarships to attend the universities of California, Illinois and Toronto while one member of the academic staff is to spend part of the academic year 1987-88 at the University of Venice as part of existing exchange arrangements.

The Office has also handled a large number of enquiries from overseas students concerning fees, English Language tuition, immigration formalities and other matters as well as from UK students about graduate study. The Office organized a series of receptions to welcome overseas students during the Autumn Term.

The College's initial target of attracting a further 200 overseas students was exceeded during the year. Towards the end of the year the Office was expanded by the appointment of Mark Helston, formerly Personal Assistant to the Registrar, as Assistant to the Director in order to meet the expected continuing increase in overseas student numbers.

In all this, it is important to appreciate the value of overseas students not only for their financial contribution to the College but also for what they can bring in terms of their ability to broaden all our perceptions. With over 1,200 overseas students from over 100 different countries in a total population of 7,600 students, UCL can be truly described as a cosmopolitan institution and one of which our founders would undoubtedly approve.

LIAISON WITH SCHOOLS

Schools Conference

The annual Schools Conference for Head Teachers or their representatives was held on 8 and 9 April. A number of County Higher Education Advisors were also invited. The introductory meeting included entertaining talks by Professor Maldwyn Jones ('Writing the History of the Inarticulate') and Professor Franz Heymann ('Naked Beauty Revealed'). Once more many

warm expressions of appreciation were received after the Conference. They particularly commented on the willingness of all College staff, in many departments, to respond to questions and discuss common problems with teachers in considerable depth.

Other Schools Contacts

The number of requests for the College to be represented at Sixth Form Higher Education Conferences continued to expand, reaching over 30 this year. In addition to the regular pattern of departmental Open Days and Schools Conferences, many groups of sixth formers also made visits to the College on other occasions.

School's Newsletters

UCL Update, a newsletter for schools, was published and widely circulated in 1986. This was followed by a second issue in 1987, covering courses in other subject areas, as well as matters of general interest such as accommodation policy. The Science Faculty also published an impressive schools newsletter, *UCL Science* in the same format.

College Videos

Active demand continued during the year for the loan of both College videos, with well over 100 schools using them. *Impressions of University College* remains popular, although now overwhelmingly in its video format. The new video on accommodation, *London Lives,* attracted a similar level of interest. There is an increasing trend for schools, and especially County Careers Services, to make their own copies to form part of video libraries.

Meeting with Heads' Representatives

The Annual Meeting of the Provost and Tutors with representatives of the Secondary Heads Association, the Headmasters' Conference and the Girls Schools' Association took place in early December. The principal topics discussed related to changes in the schools' examinations system, the current introduction of the GCSE and AS level examinations, and the prospects of changes in A level syllabuses.

EXTERNAL RELATIONS

The External Relations Office was formally established in August 1986 and accommodation has been provided temporarily in an office located in Foster Court. A secretary was appointed in November 1986 to assist the Director.

The long-term aim of the activity is to increase the financial resources available to the College from non-UGC sources by improving the public perception of the College and by promoting the services and facilities available within the College. Initially it has been necessary to concentrate on a small number of specific tasks in order to demonstrate to the College community how existing practices can be enhanced in an economical manner. One of the primary objectives chosen has been to establish an improved style of presentation for College documents, to improve the ability of the College to produce documents of high quality in house at reasonable cost and to move towards the wider dissemination of information about UCL.

Funding was provided by the College for a major design study. The first product of the study was a new College logo, as used on the cover of this report, which is now being incorporated into a wide range of College documents. The first publications to be redesigned have been the departmental brochures used for recruiting students. With the active involvement of the Faculty Tutors, new covers have been produced in a common style for almost all Departments in the Science Faculty, for the new Medical School and for two Engineering Departments. Preliminary work has also been carried out on co-ordinating the style to be adopted for the layout of the contents of each brochure. The provision of an Apple Macintosh computer in the External Relations office has enabled experiments to be carried out with the proposed procedures as well as providing a temporary service for producing the College *Bulletin* and *UCL News*, which will be published on a regular basis next session after a preliminary trial issue was received with considerable enthusiasm. Special posters were also designed for the new Centre for Archaeology and Ancient World Studies and for the Slade Summer School. The full implementation of these changes awaits the installation of new computer based typesetting equipment in the Publications Office during the next session.

The 'Science for Industry Exhibition' mounted at Imperial College as part of the celebrations for the 150th Anniversary of the University provided an opportunity to demonstrate some of the exciting work being carried out within UCL by the Marine Technology and Bioengineering Centres, in remote sensing and in biochemistry. A number of College-based exhibitions were mounted during the year including those associated with the golden jubilees

of both the Institute of Archaeology and the Wellcome Trust, the 350th Anniversary of the publication of Newton's *Principia Mathematica*, the first College Careers Fair and the annual Assembly of Faculties.

The establishment of a collection of College slides and pictures has been proposed in order to meet the need for up-to-date photographs in College publications. A set of aerial photographs of the College rectangle have been produced showing the extended College campus from Bedford Way and Bentham House in the east to The Middlesex Hospital in the west.

FORMATION OF THE CAREERS ADVISORY GROUP

During the year, the College has set up a Careers Advisory Group, its terms of reference being to monitor the employment of UCL graduates, to make proposals for improvement of job opportunities and to co-ordinate the College's policy requirements in this key area. The College is fortunate to have Sir James Hamilton, Vice-Chairman of the College Council and a former Permanent Secretary of the Department of Education and Science, as the first Chairman of the Careers Advisory Group. The members of the Careers Advisory Group include the Deans of the Faculties, the Secretary of the College, the Dean of Students, the Senior Tutor, the Registrar and the Careers Adviser. In addition, the College's representative on the University of London Careers Advisory Board is a member who, fortuitously in this formation period, is Dr P. A. Wood, the Schools Liaison Officer.

Progress is being made in the area of careers advisory matters and during the course of the year important liaison was achieved with the City and Industry as a result of a Student Industrial Fair. Further ventures are being planned and it is the College's aim to see that the careers of our students continue to be given an appropriate priority and importance.

STUDENT ACCOMMODATION

The session opened against the background of a decision by Student Accommodation Committee (SAC) not to increase residence fees overall from those charged in the session 1985-86. SAC reported a trading surplus of £195,000 for 1985-86 which, after taking into account rent, capital repayments, *ex-gratia* pensions and profits on sale of investments gave an opening balance of £206,000 in the General Reserve (the account from which all new developments are funded). SAC had no debt outstanding at the start of the year.

Applications for College residence continued to increase (11 per cent over those in 1985-86) with the largest recorded increases being postgraduates (38 per cent) and non-degree undergraduates (28 per cent). In an attempt to meet this increased demand the Residence Office put into effect two major initiatives. The first was to 'Head Lease' a number of properties from private landlords with the intention of then letting the accommodation to UCL students. Arrangements were made to rent some 120 such places ranging from a flat for 3 in Judd Street to 60 places in a former nurses' home off the Gray's Inn Road. The second was to agree to sign leases on behalf of UCL students thereby effecting what is known as a 'Company Let' and circumventing the security of tenure provisions of the 1977 Rent Act. This latter scheme enabled UCL students to occupy flats that might not otherwise be available to them and clearly gave the 200 or so students who made use of the arrangements an edge in securing property in the private market. Finally, the Residence Office was able to secure 100 places at Westfield College for UCL students.

The session saw a number of changes in staffing in the various residences. Dr Peter Jackson (Geography) felt that five years as Warden of Goldsmid was enough and resigned his post for the comfort of a flat in Finsbury Park. Meanwhile, it was all change for the Site Managers with the retirement of Miss Ann Stephenson after serving at Ifor Evans Hall/Max Rayne House since the site opened in 1968 (and before that at Bentham Hall) and Mr P. Ranyard (Ramsay Hall, 12 years), and the resignation (for motherhood) of Mrs Yvonne Conway who had been Site Manager at Campbell House since it re-opened in 1980.

The merger with the Institute of Archaeology led to an increasing awareness of the existence of the Residence Office by Institute students and by the end of session they had taken advantage of many of the services on offer. The impending merger with The Middlesex Hospital Medical School necessitated various meetings and discussions as to how to incorporate Astor College within the UCL residence system. It was finally agreed that Astor College would be open to all whilst remaining 'principally' for medical students.

Ramsay Hall phase III (73 places) was finally handed over by the builders in April 1987 and was first used for vacation visitors in July. The total cost of developing this final phase of Ramsay Hall was over £1,500,000 and UCL is indebted to the Anonymous Donor for a benefaction of £650,000 towards this development. Discussions continued throughout the year as to the best way of redeveloping 119-131 Gower Street and some thought was also given as to how best complete the Whitcher Place development. In June 1987 UCL finally relinquished its lease on 5-6 Colosseum Terrace (26 places, first

occupied 1964) and started the process of renewing the lease on 27 Lyndhurst Road (15 places, first occupied 1966).

The session drew to a close with SAC deciding that term-time fees should increase by 3.5 per cent overall for session 1987-88. Applications for residence continued to increase with those for October 1987 already 12 per cent above those for 1986. Finally SAC was able to report a trading surplus for 1986-87 of £248,500 which, after taking into account pensions, rent, interest and other items, enabled £435,000 to be set against the cost of building Ramsay III. SAC's debts amounted to just under £250,000 at the end of the year and just over £3,000 remained in the General Reserve.

FRIENDS OF UNIVERSITY COLLEGE LONDON

President: Sir Henry Phillips

The academic year 1986-87 has seen important developments in the work of the Friends. The increasing demand for grants has led to a reappraisal of the work of the Association. There is renewed optimism for the future of the Friends' work following a decision by both the Friends' Council and the College to fund the creation of an alumnus database which, it is hoped, will eventually contain the names and addresses of all graduates. Meanwhile, the database is proving most useful in the recruitment campaign launched by the Association in a bid to increase substantially the income, and consequently the grant money available, to the Friends. Such monies can then be used to fund projects within College which could not otherwise be afforded.

The increase in subscription income, while not yet large enough to satisfy all requests, has meant that the Association was able to give a total of £20,674 for various projects throughout 1986-87. The College benefited from a £3.5k grant towards the purchase of a watercolour *London University from Old Gower Mews* (1835; by George Sidney Shepherd). The Department of Physics and Astronomy's outstation at the Mullard Space Science Laboratory near Dorking received a grant towards the replacement of the swimming pool filtration equipment used by the Social Club and the roof garden on Bentham House (Faculty of Laws) was replanted with the aid of the Friends. £550 paid half the cost of a new piano for the Ifor Evans Hall.

Several grants were given towards various student expeditions to countries as varied as Iceland, Sierra Leone and Hong Kong among others. The Student Societies were not neglected in this year's round of grants with awards to

the Hockey, Football and Kung Fu Clubs; the Dram Soc and the Film Society (£2.5k towards the cost of new Dolby equipment in the Bloomsbury Theatre) and the UC Opera. Finally, a new Box Office was provided for the Bloomsbury Theatre at a cost of £6.5k.

The Association has now given £182,114 to the College since its inception in 1952. The demand for grants is increasing and the Friends are reliant upon the generosity of their subscribers. Please send any donations towards this work to the Honorary Secretary, Friends of UCL from whom information regarding covenants or annual subscriptions can be obtained.

OLD STUDENTS' ASSOCIATION

President: Professor D. W. Turner

The OSA contributed, with both company representatives and a series of seminars, to the highly successful Careers Fair which took place for the first time at the College this year. The evening buffet which ended the day was provided by the Association. A buffet supper and disco followed the AGM and a dinner arranged jointly with the Friends in November was followed by entertainment provided by the Chamber Music Society. The College Opera this year was *The Devil's Wall* by Smetana and the OSA again had a block booking for the Friday evening performance.

The guest at the Special Dinner in March was the newly-installed Rector of Imperial College, Professor Eric Ash, who before taking up that appointment was Head of the Department of Electronic and Electrical Engineering at UCL. The guest at the Spring Dinner was Dr Ann Saunders who spoke on the influence of George IV on this country's architecture, particularly that of London. The programme for the year concluded with a well-supported visit in June to mediaeval Crosby Hall in Chelsea — now a residence for women postgraduate students — where lunch was taken before the group proceeded to the nearby seventeenth-century Chelsea Physic Garden.

COLLEGE COUNCIL

Appointments to Council

Ms Hilda Kean joined the College Council this year as a member appointed after consultation with the Inner London Education Authority. A former member of Hackney Council, she has taught in ILEA schools since 1972.

At present she is an English advisory teacher.

Lady Aird was co-opted on to Council for a five-year period with effect from October 1987. She has been an Extra Lady-in-Waiting to HRH The Princess Margaret, Countess of Snowden, since 1960 and was appointed an LVO in 1980.

Mr D. B. Money-Coutts has been an Observer on Council since 1984 and has been co-opted to full membership with effect from October 1987. He has been Deputy Chairman of the Gerrard and National Discount Company since 1969. He was Chairman of the Council of The Middlesex Hospital Medical School prior to its merger with the College.

The new representative of the Old Students' Association is Mr G. Cole. After graduating from the College he joined the Ministry of Works, and was its Chief Engineer from 1972 until his retirement in 1980. He has been a member of the OSA since 1957 and was its President from 1983 to 1985.

Retirements from Council

Mr H. R. Oakley's term of office as a member of Council came to an end this year. He served as the Old Students' Association's elected representative from 1977-82. He was the senior partner, Watson Hawksley, Chartered Civil Engineers, prior to his retirement in 1985. His industrial experience has been much appreciated and he remains a member of the College's External Relations Policy Committee.

Mr W. W. Slack has been a member of Council since 1983. He was Dean of The MHMS and joins the College as Dean of the Faculty of Clinical Sciences as a consequence of the merger of UCL and The MHMS to form The University College and Middlesex School of Medicine of University College London.

Mr S. P. Chalfen, General Counsel and Director of Legal Services at Rank Xerox Ltd., has been a valued member of Council for two years but his business arrangements have necessitated his move to the USA and his resignation from Council.

PUBLIC LECTURES

The following public lectures were among those arranged by the College during the session: Public Lectures by the Sir Banister Fletcher Visiting Lecturer and Visiting Professor in Architecture, Mr Henri Ciriani on

(i) Urban Architecture, (ii) Architecture as Object: The Influence of Le Corbusier'; Barlow Lectures on Dante by Professor Maria Corti (University of Pavia) on (i) 'Le metafore della navigazione, del volo e della lingua di fuoco nell'episodio di Ulisse (Inf., XXVI), (ii) 'The Analogical Model in Medieval Thought and in Dante'; Chambers Memorial Lecture by Professor Louis L. Martz (Yale University) on 'Thomas More: Biography in Search of the Inner Man'; The Commonwealth Fund Lecture in American History by Professor Mary Beth Norton (Cornell Unviversity) on 'Gender and Society in Early America'; Durning-Lawrence Lectures in the History of Art by Elizabeth G. Cowling (University of Edinburgh) on 'Modes and Meanings: Picasso After Cubism (i) "You see me here and yet I'm already changed." Picasso and the Question of Style, (ii) "Within the limits and limitations of painting." Cubism After the Great War, (iii) "They don't invent a type of beauty every year." Picasso and the Classical Tradition, (iv) "A more profound likeness, more real than the real." Picasso between Classicism and Surrealism, (v) "The mobility of one's thoughts." The Biomorphic Style, (vi) "This marvellous simplicity." Forms of the primitive'; Freud Memorial Lectures in Psychoanalysis by (i) John Bowlby (British Psycho-Analytical Society) on 'Therapeutic Applications of Attachment Theory', (ii) Isabel Menzies Lyth (British Psycho-Analytical Society) on 'A Psychoanalytical Perspective on Social Institutions', (iii) Clifford Yorke (British Psycho-Analytical Society) on 'The Psychoanalysis of a Case of Addictive Bulimia', (iv) Riccardo Steiner (British Psycho-Analytical Society) on 'Anna O. Revisited: Desire and/or (D)es-ire', (v) Professor Joseph Sandler on 'Guilt and its Vicissitudes', (vi) Dr Peter Fonagy on 'Psychoanalysis; The Scientific Study of Single Cases?', (vii) Anne Hayman (British Psycho-Analytical Society) on 'The Psychoanalytical Notion of Phantasy: A Major Controversy Unresolved', (viii) Jonathan Pedder (British Psycho-Analytical Society) on 'The Proper Image of Mankind: Some Comments on the Structure of Psychoanalytic Theory'; Rickman Godlee Lecture by Dr Oliver W. Sacks (Albert Einstein College of Medicine in New York) on 'Neurology and the Soul'; S. V. Keeling Memorial Lecture in Greek Philosophy by Professor Montgomery Furth (University of California, Los Angeles) on 'A Philosophical Hero: Anaxagoras and the Eleatic'; Neale Lecture in English History by Professor Thomas G. Barnes (University of California, Berkeley) on 'Cropping the Heath: the Fall of a Chief Justice, 1634'; Lord Northcliffe Lectures in Literature by Professor Frank Kermode (King's College, Cambridge) on 'History and Value. (i) Only Time Will Tell, (ii) History and Value, (iii) Modernity and Value'; Stewartson Memorial Lecture by Professor S. H. Davis (Northwestern University) on 'Dynamics of Fluid

Interfaces'; William Townsend Lecture by Bernard Cohen (artist) on 'Making Art and Killing Culture'.

There was also a Public Lecture in Anatomy by Professor Luc Montagnier (Institut Pasteur, Paris) on 'Human Immuno-Deficiency Viruses'; an Annual Lecture in the Centre for Biochemical Engineering and Biotechnology by Professor A. Atkinson (Public Health Laboratory Service Centre for Applied Microbiology and Research, Porton Down) on 'Expression and Purification of Recombinant Proteins'; Lectures on Current Legal Problems by (i) Sir John Vinelott (a Judge of the Chancery Division), on 'Insolvency', (ii) Adrian A. S. Zuckerman (Fellow of University College, Oxford) on 'Illegally Obtained Evidence — Discretion as a Guardian of Legitimacy', (iii) J. Beatson (Fellow of Merton College, Oxford) on 'Benefit, Reliance and the Structure of Unjust Enrichment', (iv) Gavin Lightman, QC on 'Trade Unions in Chains — Scargill Unbound. The Constraints of Sequestration and Receivership', (v) Malcolm Grant on 'Co-Ownership: What could be Simpler?', (vi) Michael Beloff, QC on 'Minority Languages and the Law'; Sir John Foster Memorial Lecture by Mr Anthony Lewis on 'To Call Power to Account: the Public Right of Free Speech'; Public Lectures in Hebrew by (i) Eli Yassif (Ben Gurion University of the Negev) on 'Fact and Fiction in Medieval Jewish Folk Literature', Robert Wistrich (Hebrew University of Jerusalem) on 'The Clash of Ideologies in Jewish Vienna (1880-1918): The Strange Odyssey of Nathan Birnbaum', David Vital (Tel-Aviv University) on 'Zionism — the Crucial Stage 1908-1919', Ezra Mendlesohn (Hebrew University of Jerusalem) on 'The Jews of Eastern Europe 1918-1939: Assimilation, Acculturisation, Nationalism'; the 150th Anniversary of the University of London Lecture by Professor F. M. L. Thompson on 'The Contribution of the Faculty of Arts Between 1836 and 1986'; a University Lecture in Laws by Judge Manfred Lachs (International Court of Justice) on 'Recent Jurisprudence of the International Court of Justice'; the Richard Llewelyn-Davies Memorial Lecture by The Rt Hon. The Lord Flowers (Vice-Chancellor of the University of London) on 'The Nuffield Planning Enquiry'.

A Subscription Lecture Series in Egyptology was given by Dr G. T. Martin on 'The Royal Tombs of Akhenaten and his Family at El-'Amarna', 'The Courtiers of the Late XVIIIth Dynasty', 'The Memphite Tombs of Horemheb and Maya' (three lectures); Mrs J. Samson on 'Akhenaten, Nefertiti and Smenkhare'; Professor H. S. Smith and Mr R. Morkot on 'The Nubian Policy of the Pharaohs in the Late XVIIIth Dynasty'; Dr R. G. Robins on 'The Canon of Proportion in Amarna Art'; Dr D. M. Dixon on 'Medical Aspects of the Amarna Period: An Overview'; Mrs Amélie T. L. Kuhrt on 'The Amarna Letters and the Kassite Kings of Babylonia'; Mrs V. Hankey on

'El-'Amarna, Crete and Mycenae: Petrie's Legacy to Aegean Studies'; Mr E. P. Uphill on 'The Royal Palaces of El-'Amarna'; Mr D. G. Jeffreys on 'Memphis in the Late XVIIIth Dynasty'; Professor H. S. Smith on 'The Late XVIIIth Dynasty: Evidence and History'.

Inaugural Lectures were given by: Mr C. V. Betts (Professor of Naval Architecture) on 'Engineering Design at Sea?', Dr J. A. Campbell (Professor of Computer Science) on 'Artificial Intelligence — A State of Mind?', Mr M. H. Crawford (Professor of Ancient History) on 'The Laws of the Romans', Dr J. G. A. Croll (Professor of Structural Engineering) on 'Engineering, Buckling Under Stress', Dr Wendy E. Davies (Professor of History) on 'Man, Time and Territory — On Changing Patterns of Mobility in European History', Dr D. H. Davis (Professor of Physics) on 'Hypernuclei', Dr C. R. Ganellin (Smith Kline & French Professor of Medicinal Chemistry) on 'From Molecules to Medicines', Dr J. B. Long (Professor of Cognitive Ergonomics) on 'Computers and People — Matching Machines to Minds', Dr A. W. Segal (Charles Dent Professor of Medicine) on 'The Intriguing Case of the Missing Molecules', Dr P. C. Treleaven (Professor of Computer Science) on 'Sixth Generation Computers', Dr Gerta Vrbová (Professor of Developmental Neuroscience) on 'The Intimate Relationship Between Nerve and Muscle.

Lunch-hour Lectures were given by Dr Leslie A. Aiello (Anthropology) on 'Two Feet Rather Than Four: The Distinctive Human Adaptation', Dr W. M. Bray (Institute of Archaeology) on 'Tenochtitlan: An Aztec Metropolis', Mr M. W. C. Hassall (Institute of Archaeology) on 'Bureaucrats and Boffins in the Late Roman Empire', Dr I. C. Glover (Institute of Archaeology) on 'Beads and Bronzes in Prehistoric Thailand', Mr J. Mellaart (Institute of Archaeology) on 'Catal Hüyük, a Neolithic Town in Anatolia: Some Unpublished and Unusual Wallpaintings', Dr R. M. Reece (Institute of Archaeology) on 'Roman Britain — A Subversive View', Mr D. Dunster (Bartlett School of Architecture and Planning) on 'Tourism and Architecture', Mr J. C. Rae (Bartlett School of Architecture and Planning) on 'Florence Percieved', Professor J. A. Campbell (Computer Science) on 'The Japanese "Fifth Generation" Computing Project and its International Rivals', Dr Helen D. Donoghue (Dental School) on 'Bacteria Which Grow on Your Teeth', Professor J. P. Moss (Dental School) on 'Facial Surgery by Computer', Victoria Chick (Economics) on 'Keynes's *General Theory* After 50 Years: What Remains?', Dr G. T. Martin (Egyptology) on 'Some Citizens of Ancient Memphis: A Mummy Cache, c.1000 BC', Dr D. R. Karlin (English) on 'Rudyard Kipling: The Jungle Books', Mr P. Neagu (Slade School of Fine Art) on 'Updating Brancusi's Idioms', Professor C. A. B. Smith (Genetics

and Biometry) on 'Odd Numbers', Dr A. Warren (Geography) on 'Some Work on Ergs — The Wahiba Sands', Mr A. Griffiths (Greek) on 'Greek Vase Corpse Shock Probe', Dr Ada Rapoport-Albert (Hebrew and Jewish Studies) on 'Asceticism, Mysticism and Gender in the Jewish Tradition', Professor R. L. Loewe (Hebrew and Jewish Studies) on 'Astronomy, Poetry and Religion: an 11th Century Spanish Jewish Philosopher's Synthesis', Dr D. J. Betteridge (Medicine) on 'The Cholesterol Heart Disease Story', Professor A. W. Segal (Medicine) on 'The Fight to the Death between the Body and Bacteria', Mr A. Marston (The Middlesex Hospital Medical School) on 'The Battle of the Bile-Duct. Surgical Controversies 1836-1986', Mr S. J. Steele (Obstetrics and Gynaecology) on 'Cosmetic Gynaecology', Professor G. Bentley (Institute of Orthopaedics) on 'The Present State of Artificial Knee Joint Replacement', the Provost on 'Is a Pendulum's Motion Predictable?', Professor Hannah Steinberg (Psychology) on 'Stress, Medicines and Exercise', Professor R. N. Shepard (Psychology) on 'Mind and World — Intimations of Mental Mechanics', Dr P. Fonagy (Psychology) on 'Can Psychotherapy Cure?', Dr I. C. McManus (Psychology) on 'Left-Handedness: Mythology, Psychology and Biology', Dr H. C. Plotkin (Psychology) on 'Evolutionary Epistemology: the Cinderella of the Biological Sciences?', Dr Dorothy F. Einon (Psychology) on 'Why Do Animals and Children Play?'.

SUPPLEMENT

HONOURS AND DISTINCTIONS

In the New Year's Honours List Professor E. J. Denton, former student of Physiology at the College and Fellow of the College, was created a Knight Bachelor 'for services to Marine Biology'.

Sir John Newenham Summerson, former student of Architecture at the College and a Fellow of the College, was created a Companion of Honour 'for services to the history of Architecture'.

Mr A. Elton, former student of Medical Sciences, was created a Knight Bachelor 'for political and public service'.

In the Queen's Birthday Honours List Mr J. B. Bailey, former student of Laws at the College, received the award of KCB as 'Procurator General and Treasury Solicitor'.

Under the Statutes and Regulations the Council of the College may grant the title of Fellow of University College London to not more than ten persons who are former students of the College and have attained distinction in the arts, literature, science or public life, and the title of Honorary Fellow of University College London to not more than two persons who have rendered exceptional service to the College or who have had a close connection with it. In 1986-87 the Council granted the titles of Fellow and Honorary Fellow of University College London to the following:

Fellows

Professor G. V. P. Chamberlain, Professor and Chairman, Obstetrics and Gynaecology, St George's Hospital Medical School;
Mr I. M. Cohen, Managing Director of Mullard Ltd;
Dr Enriqueta Frankfort, former Director of the Photographic Collection of the Warburg Institute;
Professor R. W. Guillery, Professor of Human Anatomy in the University of Oxford and Fellow of Hertford College, Oxford;
Dr K. U. Ingold, Associate Director, Division of Chemistry, National Research Council of Canada;
Professor I. C. Percival, Professor of Applied Mathematics, Queen Mary College;
Mr G. E. M. De Ste Croix, formerly Fellow and Tutor in Ancient History, New College, Oxford;
Mr J. H. Smith, Secretary, Imperial College of Science and Technology;
Dr P. J. Verrill, Dean of the Faculty of Clinical Sciences, School of Medicine, and Consultant Anaesthetist, University College Hospital;
Professor H. S. Wolff, Founder and Director of Brunel Institute for Bio-engineering.

Honorary Fellows

Professor N. L. A. Hart, former Principal of Brasenose College, Oxford and Professor of Jurisprudence in the University of Oxford; Mr W. W. Slack, Dean and Senior Lecturer in Surgery, The Middlesex Hospital Medical School and Consultant Surgeon at The Middlesex Hospital.

Professor O. Skutsch, Emeritus Professor of Latin, was elected a Fellow of the British Academy for contributions to the study of Latin literature.

Among many honours and awards received and appointments obtained by members and former members of staff of the College were the following:

Dr P. J. Armour, Lecturer in the Department of Italian, was appointed Visiting Fellow in the Department of Italian at the University of Melbourne; Professor E. A. Ash, Rector of Imperial College of Science and Technology, Fellow of UCL and former Head of the Department of Electronic and Electrical Engineering, was awarded the honorary degree of DSc by the University of Leicester; Professor F. T. Banner, Visiting Professor in the Department of Geological Sciences, was awarded the Cushman Award for Excellence in Foraminiferal Research; Professor R. Blundell, Professor of Economics, has been appointed part-time Research Director of the Institute of Fiscal Studies for 1986-88; Dr W. E. H. Cockle, Research Assistant in the Department of Greek, was elected a Fellow of the Society of Antiquarians; Professor J. McN. Dodgson, Professor of English, was awarded a Joran Sahlgren prize by Gustav Adolfe Akademien, Uppsala, for his worthy contribution to the knowledge of Nordic place and person-names in England particularly through the commendable edition of the *Domesday Book*; Dr D. J. Doorly, Associate Research Assistant in the Department of Mathematics, received an American Society of Mechanical Engineering award, jointly with Dr M. L. G. Oldfield of the University of Oxford, for their paper *Simulation of the effects of shock wave passing on a turbine rotor blade*; Professor W. D. Dover, Professor of Mechanical Engineering, was appointed Visiting Professor in the Department of Mechanical Engineering at City University; Professor P. G. Foote, Honorary Research Fellow in the Department of Scandinavian Studies, had the degree of Dr Phil *honoris coursa* conferred upon him by the University of Iceland; Professor S. Greenbaum, Quain Professor of English Language and Literature, was elected Dean of the Faculty of Arts in the University of London; Professor Sir John Hale, Professor of Italian History, was appointed a member of the Museum and Galleries Commission and was awarded the Serena Medal by the British Academy; Professor Sir Andrew Huxley, Honorary Fellow, was elected to an Honorary Fellowship of Queen Mary College; Sir Immanuel Jakobovits, Fellow, received the Honorary Degree of DLitt from the City University and was elected to an Honorary Fellowship of Queen Mary College; Professor D. W. J. Johnson, Professor of French History, was appointed Cummings Lecturer for Spring 1987 at McGill University, Montreal; he was also appointed Commander dans l'Ordre des Palmes Academiques; Professor W. Johnson, Fellow, received the honorary degree of DEng from the University of Sheffield; The Rt Hon. Lord Lloyd, Fellow, received the honorary degree of LD from the Ritsumeikan University of Kyoto, Japan; Professor W. R. Mead, Emeritus Professor of Geography, received an honorary doctorate from the University of Lund; the late Emeritus Professor Arnaldo Momigliano, former Professor of Ancient History, was awarded the first honorary doctorate in the field of Historical Sciences from the University of Marburg; Dr D. Nelken, Lecturer in the Department of Laws, was awarded the Jean Monnet Fellowship at the European University Institute, Florence, for 1987-88; Mr J. Rickard, student in the Department of Mathematics was awarded the Smith's Prize at the University of Cambridge for a paper entitled, *On equivalences of derived categories of modules*; Professor

Sir Randolph Quirk, Emeritus Professor of English Language and Literature and Fellow of the College, was appointed a vice-president of the Foundation for Science and Technology; Emeritus Professor O. Skutsch received the Honorary Degrees of DLitt from the Universities of Padua and St Andrews; a junior Whitehead prize was awarded by the Council of the London Mathematical Society to Dr A. H. Schofield, Lecturer in the Department of Mathematics, for his work in ring theory.

APPOINTMENTS

During the session 1986-87 a number of distinguished professorial appointments were made:
Professor P. Ahrends, a practising architect and a senior partner in the firm of Ahrends, Burton and Koralek, was appointed to the Bartlett Chair of Architecture; Dr L. M. Bethell, Reader in Hispanic American and Brazilian History in the Department of History, was appointed to the Chair of Latin American Studies; Professor P. M. Cohn, Professor of Mathematics in the Department of Mathematics, took up appointment to the Astor Chair of Mathematics following the retirement of Professor C. A. Rogers; following the endowment of a Chair of Medicinal Chemistry by Smith Kline and French Ltd, Dr C. R. Ganellin was appointed to the new Professorship from 1 October 1986; Professor M. W. Swales, Professor of German, was appointed to the Chair of German in succession to Professor J. P. Stern; Dr A. W. Segal, Senior Clinical Lecturer and Wellcome Senior Research Fellow in the Department of Haematology, was appointed to the Charles Dent Chair of Medicine in the Department of Medicine; a newly established Chair of International Law was filled by the appointment of Dr M. H. Mendelson, Fellow of St John's College, Oxford; in addition to receiving the conferred title of Professor of Developmental Biology, Dr Anne E. Warner was appointed to the Royal Society Foulerton Research Professorship.

The following appointments to Readership were made:
Dr F. Rosen, Senior Lecturer in Government at the London School of Economics and Political Science who was on secondment to the College as a Research Fellow on the Bentham Project, took up appointment as Reader in the History of Political Thought; the Readership in European Community Law was filled by the appointment of Dr F. G. Snyder, Reader in the School of Law at the University of Warwick.

The University of London approved the conferment of the following titles of Professor: Dr Susan N. Brown (Mathematics); Dr P. H. W. Butterworth (Biochemistry); Dr D. H. Davis (Physics); Dr B. D. Gomperts (Biochemistry); Dr J. B. Long (Cognitive Ergonomics); Dr Gerta Vrbova (Developmental Neuroscience); and Dr Anne E. Warner (Developmental Biology; Dr Warner was also appointed to the Royal Society Foulerton Research Professorship).

The title of Reader was conferred upon the following:
Dr D. Allan (Biochemistry); Dr Rosemary D. Ashton (English); Dr R. W. Battarbee (Geography); Dr A. J. Bloodworth (Chemistry); Mr S. Brisley (Fine Art); Dr B. L. Butterworth (Psychology); Dr M. J. Geller (Hebrew and Jewish Studies); Dr J. S. Jones (Genetics); Dr Sheila J. Jones (Anatomy); Dr T. W. Jones (Physics); Dr J. Mowbray (Biochemistry); Dr M. N. Patel (Mechanical Engineering); Dr P. F. Rawson (Geology); Dr P. Richards (Anthropology); Dr I. M. Waite (Periodontology); and Mr S. R. Wilbur (Computer Science).

The University of London conferred Emeritus titles upon the following:
Professor D. Bishop, Emeritus Professor of Building; Professor J. H. Burns, Emeritus Professor of History of Political Thought; Professor B. Cheng, Emeritus Professor of Air and Space Law; Professor E. R. H. Ivamy, Emeritus Professor of Law; Professor D. W. James, Emeritus Professor of Anatomy; Professor C. A. Rogers, Emeritus Professor of Mathematics; Professor J. P. Stern, Emeritus Professor of German; Dr R. Niedergerke, Emeritus Reader in Biophysics; Mr J. G. Wardrop, Emeritus Reader in Traffic Studies; Dr J. L. Watling, Emeritus Reader in Philosophy.

The following new appointments to Headship of Department were made by the Council:
Professor E. A. Power (Mathematics); Professor B. Kapferer (Anthropology); Dr M. Geller (Hebrew and Jewish Studies); Professor M. W. Swales (German).

A number of appointments to College offices were made:
Professor D. E. N. Davies, Head of the Department of Electronic and Electrical Engineering, was appointed Vice-Provost.
Mrs Jacqueline Dyson, Tutor to Students in the Faculty of Laws, took up the office of Adviser to Women Students.

The College made a number of distinguished appointments to Visiting Professorships as follows:
Professor W. W. Hallo, Professor of Assyriology at Yale University (Hebrew and Jewish Studies); Dr B. R. Steele, former Director of Housing with the Greater London Council (Bartlett School of Architecture and Planning); Mr W. J. Stewart, Research Executive at Plessey Research (Caswell) (Electronic and Electrical Engineering); Professor R. L. Tamby Raja, (Associate Professor of Obstetrics and Gynaecology); Dr M. J. Waterfield, former departmental head of the Protein Chemistry Laboratory at the Imperial Cancer Research Fund (Visiting Professor of Experimental Oncology in the School of Medicine).

RETIREMENTS

Dr T. Barta

Dr Thomas Barta joined the Department of Civil and Municipal Engineering from the Romanian Building Research Institute at Timisoara in 1963. He emigrated from Romania to settle in London, joining the specialist research team on buckling and stability of structures which was being established at that time by Professor Henry Chilver. Tom Barta has been meticulous in his development of structural theory, and his teaching of design to undergraduates. How he has managed to maintain this order while having a bohemian attitude to his office in UCL has long been a mystery to his colleagues. Outside the Department Tom Barta has found many friends in the activities of the Library, on whose committees he has served for many years. Now he is a naturalised Englishman, he should enjoy his retirement in the Surrey countryside in the style which befits an Emeritus Reader.

Mr C. H. Bishop

The Bursar's Department lost one of its best-known stalwarts by the retirement of Mr C. H. Bishop in July 1987 after 40 years' service. Charlie Bishop joined the Maintenance Section as a plumber's mate after war service in the Army. He learnt his trade in the College and qualified as a plumber in 1953. He was steadily promoted to foreman and eventually to Building Supervisor in 1974. In that role he had a general responsibility for all direct labour working in the College as well as retaining a particular oversight of plumbing and drainage problems. His work took him into all parts of the College and made him one of the best-known members of the Bursar's Department. Charlie suffered a serious illness in 1984 which kept him away for six months. Characteristically, he resumed his full load of work on his return despite all efforts to lighten his burden. The number of enquiries and large number of colleagues who attended his farewell gathering on 30 June testified to the warmth of feeling among his many friends in the College.

Miss Sylvia Brightley

Sylvia Brightley first joined the College in 1945, when so many aspects of life were very different; one telling statistic is that her weekly payments then would just about serve as an hourly rate today! Her initial appointment was in the Registry, where she made rapid progress, and within a few years her evident talents led to rapid advancement, so that she was promoted into the position of Science Faculty Clerk at an unusually young age.

During her long service in the Faculty Office Sylvia saw the Faculty through tumultuous times and great changes. As financial cuts began to take greater and greater toll, and student target numbers and full-time equivalents began to assume such significance, the work of the Office came under increasingly critical scrutiny from lean and hungry Departments, combined with demands for more detailed statistical records. Sylvia Brightley was never found wanting. Her record-keeping was impeccable, her tact and discretion never at fault, and confidences were always safe from betrayal. The coming of computerization was undoubtedly a great disturbance for her, and the feeling of implied criticism of the manner in which things had been done unavoidable. Nevertheless Sylvia's loyalty was such that she was always helpful to those who had the responsibility of installing the new system, although she must occasionally have looked back with nostalgia as it went through its teething troubles. Unfortunately, after bringing the Office successfully through the transition period, retirement came before she could relax and enjoy fully the benefits of the new equipment.

During her last few years as Clerk, her health suffered, but typically did not affect her dedication to the job. After formally retiring in 1984 she continued part-time for a final year, to ease the transition from a lifetime of full-time service to full retirement, but her continued presence with wise advice was also much appreciated by the new Faculty staff. After being on the books for a total of 40 years, she is now greatly enjoying her well-earned retirement.

The College owes much to Sylvia. A well-run Faculty Office, enjoying the confidence of the Departments, students and Administration is essential for the well-being of any Faculty. The work of the Dean and the Faculty Tutor are much assisted thereby, and those of Science will well remember Sylvia's accurate and pithy minutes. To have a calm centre, like Sylvia, in times of storm is a great solace.

Professor N. F. Dixon

Professor N. F. Dixon retired this year after 34 years' service in the Department of Psychology, first as an Assistant Lecturer (1953-56), then Lecturer (1956-65), Reader (1965-81) and (since 1981) Professor of Psychology. He served throughout the Second World War in Bomb Disposal Units of the Royal Engineers, being wounded in 1944 during the Normandy campaign, losing his left arm. Subsequently he returned to Bomb Disposal until 1948 when he became Military Correspondent in Palestine. He left the Army as a Major in 1950, having been awarded the MBE (Mil.), and then read Psychology at the University of Reading, where he was also awarded his PhD. It was there that he developed the interest in perception which was to be a principal theme of his research. He was especially concerned with what he saw as a serious neglect of emotional and motivational factors in most experimental theoretical work in this field. This led to a series of studies of subliminal perception, in which stimuli below the threshold of experience are shown to have effects upon behaviour and also on perceptual defence, in which unconscious factors are shown to prevent threatening stimuli entering into awareness. In carrying out this work, he devised many ingenious pieces of apparatus and his office, which often also served as his laboratory, would have outfaced even Heath Robinson. His research topics were very controversial at that time, as reflected in the title of an influential book he published in 1971, *Subliminal Perception: The Nature of a Controversy.* This became a classic in its area and, like his subsequent book *Preconscious Processing*, published in 1981, was translated into many languages.

His military career had led him to consider some of the personality characteristics of successful, and unsuccessful, commanders. These were presented in a characteristically witty and provocative manner in another very successful work, *The Psychology of Military Incompetence*, which appeared in 1981. The obvious relevance of his ideas to contemporary problems of military command led to him being much in demand as a lecturer and consultant for all three British Armed Services and to his book being required reading by the Israeli Army among others. Professor Dixon was also a very effective teacher and engaged his students not only by the breadth of his knowledge but also by the wittiness of his lectures. He continues work as an Honorary Research Fellow in the Department, and has just published *Our Own Worst Enemy*, in which he speculates on the reasons why our species appears so incompetent when it comes to ensuring survival.

Professor J. D. Judah

Professor J. D. Judah, Wellcome Professor of Experimental Pathology, retired on 30 September 1987. He began his career with Roy Cameron in the Graham Research Laboratory of University College Hospital Medical School in 1946. He then pioneered the investigation of the mechanisms of cellular injury for which that laboratory became famous and also made significant contributions to biochemistry. In 1948 Judah was appointed lecturer in the Department of Morbid Anatomy, and in 1954, Senior Lecturer. In 1958 he was appointed Associate Professor of Pathology at the University of Pennsylvania and an Associate Member of the Wistar Institute. His research flourished in the United States and in 1963 he was appointed to the Chair of Metabolic Research at the Chicago Medical School. In 1967 he was invited to the newly established Wellcome Chair of Experimental Pathology at UCHMS. He then set up

a new department with the help of the Medical Research Council which provided all the posts for a research group. He and his colleagues have in the past 20 years undertaken a lively and productive research programme, mainly in cell biology and biochemistry. Dr Judah has made a number of significant and lasting contributions to his science. Among the most important can be included the discovery in 1951 of two of the sites of phosphorylation in the electron transport chain of respiring mitochondria. One of these is coupled to the oxidation of reduced cytochrome-C$uand the other, which was shown to be insensitive to the action of the nitrophenolic uncouplers, turned out to be a substrate linked phosphorylation in the first stage of the oxidation of α-oxoglutarate. At about the same time, arising from his interests in cell pathology and the hepatotoxic effect of carbon tetrachloride, he demonstrated that the enzymes isocitrate dehydrogenase and malate dehydrogenase are located in both the cytosol and inside the mitochondria. This was an early application of methods of sub-cellular fractionation, and the result is of particular significance since it sowed the seed of subsequent developments by others in the area of redox-shuttle mechanisms. His most important contribution during his sojourn to the USA was undoubtedly the discovery of a phosphorylation-dephosphorylation mechanism in the sequence of the membrane linked reactions controlling the sodium pump. Also he retained his interest in cell pathology and concentrated much attention on the mechanism of ethionine intoxication which results in depletion of intracellular potassium. Following his return to the UK he turned his interest to the secretion of albumin. This work followed directly from his interest in K^+ depletion since it was soon found that maintenance of cell K^+ is essential for the secretion of protein by the liver. In K^+-depleted cells he found that there is an accumulation of pro-albumin, a precursor of the secreted material. This was purified and sequenced and its conversion to the mature protein was shown to occur in the Golgi apparatus. He was elected President of UCL's Natural Science Club in 1973, and appointed (*nem. con.*) its Advisor on Gastronomic Hazards in 1978. This position he still holds and together with his research, it will occupy his retirement.

Mr P. H. Shaw

Peter Shaw retired from the College in August 1987 after 26 years' service. He joined the Accounts Department in 1961 and worked mainly in payroll and superannuation until 1969. After a period on other duties he returned to salaries and superannuation as Deputy Section Head in 1977. He came to the Personnel Department in 1978 when salaries and superannuation were added to its other activities. At the time of Ron Ward's death in service in 1983 Peter stepped into the breach temporarily and responded magnificently. Latterly he concentrated on pension matters and in this capacity became widely known to all groups of staff to whose pension affairs he gave devoted attention. His kindness and goodwill were never failing.

Mr G. T. Thayre

Mr George Thayre came to the College in 1972, after more than 30 years' service in the Regular Army, to take over Miss Pank's post as Head of the Fees and Grants Section of the Registrar's Department, which later became the Department of Student Finance in the Registrar's Division.

Since his appointment as Assistant Registrar (Student Finance) he has seen the revenue from fees for which he is responsible rise from £450k to £8.5m, has successfully subdued the mechanical forces arrayed against him by the computer fanatics in Senate House and has built up a reputation for absolute dependability and unswerving dedication to the College and its financial wellbeing. We shall miss his positive contribution to the life of the Division and the College and his unfailing good humour.

RESIGNATIONS

Dr W. H. T. Vaughan

Dr William Vaughan resigned in December 1986 as Reader in the History of Art to take up his new post as Professor of the History of Art at Birkbeck College.

Professor Vaughan graduated from the Courtauld Institute of Art in 1965 with First Class Honours and was awarded his PhD in 1977. From 1968 to 1972 he was an Assistant Keeper for the British Collection in the Tate Gallery. He joined the Department of History of Art at UCL in 1972 and was promoted to a Readership in 1979. Whilst at the Tate he published a short book on Endymion Porter and William Dobson, and was responsible for the catalogue of the Casper David Friedrich exhibition. Books on Flemish Painting (1976) and on William Blake (1977) were followed in 1978 by a major publication on Romantic Art. Within this general field Dr Vaughan has become the leading expert on the relationships between German and English Art in the period and in 1979 he published *German Romanticism and English Art*, followed in 1980 by a book on German Romantic Painting, both of them for Yale University Press. He has also a long list of articles in major scholarly journals. Apart from this prolific record of publication Dr Vaughan has opened up a major new field of study through his research on Mid-Nineteenth Century Census Returns. The resulting database will provide a mass of new information about British artists and their lives and their economic and social circumstances. Moving on from this he has become one of Europe's leading experts on major aspects of the application of computers to the History of Art. He has not only founded 'Chart' which acts as a major clearing house for international activity in the field and which has been associated with a regular series of national meetings and international Colloquia, but he has also embarked personally on an important project in Image Analysis for art historical purposes. It might appear from this prodigious research output that William Vaughan was little to be seen in the Department. In fact, the very opposite has been the case. He has carried an unusually heavy load of teaching and has been responsible for the organization of the Modern group which forms the largest section of the Department. His willingness to help his colleagues, his kindness to all the students with whom he came in contact and his contribution to the work of the large number of graduate students whom he supervised in the course of their MPhil/PhD studies will long be remembered. Luckily, the increasing close links which are now being forged with Birkbeck College, notably symbolised by the recent Joint Appointment of a lecturer in the application of computers to the History of Art, mean that he will not be wholly lost to the UCL Department.

Dr D. Parker

Dr D. Parker left the Department of Medical Physics at the end of September to take up a chair in the Department of Physics at University College Swansea. Dr Parker was a graduate of Cape Town University, obtaining his degree in Physics and Mathematics in 1959. He subsequently studied for his PhD at the University of Southampton, working on the physics of semiconductor surfaces. He joined UCL in 1964 as a BECC research fellow studying techniques for the measurement of oxygen in blood and tissues. He was appointed as a Senior Lecturer in Medical Physics in 1973, and Reader in 1984. During his period at UCL he acted as deputy head of the Department of Medical Physics and was also instrumental in the setting up and running of the Medical Instrumentation Unit.

OBITUARIES

Sir William Coldstream

Sir William Menzies Coldstream, Slade Professor from 1949 to 1975, died on 18 February 1987 shortly before his seventy-ninth birthday.

'Bill' was first and foremost a painter with a wide interest in all the arts, and as a young man talked and worked with most of the leading artists of his generation. He worked for a spell (1933-36) with the GPO Film Unit and helped to make it one of the shining patches of British film history. His interest in film continued throughout his career: he served as Chairman of the Governors of the British Film Institute from 1964 to 1971, and was an influential member of the Lloyd Committee (under the chairmanship of Lord Lloyd of Hampstead, of UCL's Department of Laws) whose report in 1967 led to the setting up of the National Film School. He also started, at the Slade in 1960, the first unit for film study at a British university.

As Slade Professor, he transformed the School and also made the Slade truly a part of College. When Bill was appointed in 1949, the Slade still kept its own terms and admitted its own students (it does the latter to this day); students then were admitted at any time during the year on submission of a portfolio to the Professor. Bill promptly instituted a single annual admission comparable to that of other departments, and the Slade began keeping College terms. He felt keenly the advantage to the Slade of being part of a distinguished multi-faculty College, and drew on colleagues as well as outside scholars for a wide-ranging programme of theoretical studies for Slade students.

He also liberalised the course of studies at the Slade, which had remained the same — as, indeed had most of the staff — since he was a student in the twenties under Tonks. Drawing and painting, from casts and models, had been the staple. Bill introduced young painters as full-time and particularly part-time staff, and widened the range of activities through which students might learn to become artists. He also introduced postgraduate studies in the Slade. These principles guided him later in his work on the national system of art education, published in the Coldstream Reports of the early seventies.

After his period with the GPO Film Unit, Bill with Claude Rogers and Victor Pasmore started the Euston Road School. The original idea, apparently, was Claude's — how could three painters get together £150 each a year to live on? — and Claude

speaks of the moral support they got from Duncan Grant and Vanessa Bell. Bill always spoke warmly of Kenneth Clark, who used to buy their paintings. Then the war: Bill volunteered at the age of 31, and found himself in the Royal Artillery, receiving instruction from a drill sergeant. "We open the breech with care, Coldstream." "You don't know with how much care, Sergeant," said Bill, as the rest of the squad dissolved in laughter. Then, via camouflage officer, he became an Official War Artist, and painted some of his finest portraits. After the war, Camberwell, where the reputation of the Euston Road School attracted some of the best young artists returning from war service. He brought many of them with him when he returned to the Slade in 1949.

Although he spoke so entertainingly all his life, not much is left behind him in print. A PhD thesis on his work was completed by Peter Rumley at the University of Sussex in 1986.

No one can be sad about Bill's death for very long, because delight in the memory of him must soon break in.

Mrs Elvina Foster

The unexpected death of Mrs Elvina Foster on 10 December 1986 at the age of 57 was a sad loss to all her friends and former colleagues in UCL. Her long period of service began in December 1945 when she first joined the College and for a period of eighteen years she worked mainly in the Records Office as a Confidential Clerk. In March 1963 she left for a brief stint at Southgate Technical College as Chief Clerk and then from November 1964 to July 1975 she spent a very happy period at the School of Oriental and African Studies where she was Principal Clerk and Assistant to Mr E. O'Connor, now Secretary of the School. She returned to the Records Office in 1975 where she was to remain as Records Officer until her retirement in September 1984. Over the years her experience and knowledge of the office enabled the Records Office to provide an efficient service to the Administration and the College at large. Above all, her colleagues and outside researchers alike will remember her generosity, loyalty and her great feeling for the College past and present. She had a fund of historical information, a wonderful memory and was never too busy to be of help to others. She is sadly missed within the College.

Mrs Grace Powell

The untimely death of Grace Powell on 2 August 1987 came as a great shock to her friends and colleagues at the College, particularly as she had courageously fought serious illness only a few years previously.

Grace joined the Personnel Department in 1975 and provided spirited service throughout. Her work touched on many areas of College and she came to the rescue of many a Department at times of staff shortage and crisis by promptly arranging temporary secretarial cover.

Grace was often to be found at the centre of ALSA social events which she helped organize with great enthusiasm. Her colourful presence is sadly missed.

Mr J. W. Scott

Joseph William Scott, Librarian to the College between 1954 and 1982, died at his home in Yorkshire on 4 August 1986. Joe had retired to the country of his birth and the city where he began his outstanding career in librarianship as a 'library boy' in Leeds University Library. After war service he came to London as Librarian of Birkbeck College, a library he rebuilt after extensive war damage. In 1954 he moved to UCL, to a Library already strong in research collections but substantially stronger by the time Joe retired. Joe was remarkably successful in the acquisition of special collections. Under his leadership, for example, there came to UCL some 7,000 volumes of the library of the Norwegian Embassy, the libraries of the Folklore Society and the Royal Historical Society, and the Orwell papers. He played a major part in building the Scandinavian collections, and many more. These are but a few examples of his work in attracting new material for the library, for he was a firm believer in the dictum that a librarian's major concern should not be with the books in his library, but with those that were not and should be.

As a colleague Joe's warmth, friendliness, and wit endeared him not only to his staff, but to people in all walks of College life, from cleaning ladies to Provosts. Everyone knew the Librarian. Joe was fun to be with, an accomplished raconteur who drew freely from his astonishingly wide knowledge and acquaintanceship. Joe could recite a long list of Yorkshire synonyms for back alleys, retained from childhood in his remarkably tenacious memory. It was this power of recollection that led to the tribute that Joe did not merely know where his books were he knew what was in them.

And his priorities as a librarian he was able to pass on to new generations of librarians through his inspiring lectures in the School of Library, Archive and Information Studies. Respect for Joe Scott was as high within his profession as it was within his College.

Ms Maggie Scruton

The many friends of Maggie Scruton in the College and particularly in the Bartlett School were deeply saddened by her death on 24 October. Maggie Scruton had worked in the Bartlett for eighteen years. She started in 1968 as secretary to Lord Llewelyn-Davies when he was Professor of Architecture in the Bartlett and later, following the amalgamation with the Department of Town Planning, became secretary to Professors Reyner Banham and Peter Youngman. When they left, she continued as secretary to the history and landscape sections of the School, but also took over the admissions and clerical administration of the expanding MSc in Architecture programme. Such a bald description of her work gives no idea of the impression she made upon everyone who dealt with her. Her interest in everyone's development and success, and her concern for the problems of others, whether prospective applicant, current student or visiting professor, earned her the deserved reputation of being 'the human face of the Bartlett'. She believed vehemently that as well as being a place of work and of study (to which she contributed more than her share), the Bartlett was also a place where the pleasures and graces of social life should be found and enjoyed. To this end, she herself, in her own time and unremunerated, prepared regularly the most remarkable lunches (which many members of the College have shared, probably without realising their origin, such was her modesty and

reticence). Those who walk past Wates House on Thursday evenings and see revelry within are witnessing another of her creations: the Bartlett Society's weekly social evening was initiated and sustained by her as a regular occasion for staff and students to meet and talk together. In these, and in many small ways, she made the Bartlett a richer and more enjoyable place. She will be remembered with fondness and respect — and missed — by very many staff and students, past as well as present.

Mr L. Wigglesworth

It was not only colleagues in the Department of Mathematics but friends throughout the College who where shocked at the sudden death of Laurence Wigglesworth in College on 12 May 1987. He had enjoyed the company of his friends right up to the day of his death and had attended the Fellows' Dinner on the evening of the 11 May with no sign of any illness. He attended a meeting of the Science Society early in May and joked with several friends about rock climbing together 30 years earlier. He had led some of us through the 'eye of a needle' on a climb in Scotland and we realised our middle-aged spread would forbid passage through the needle today. Laurence was an enthusiastic member of the Fell and Rock Club and in latter years of the Ramblers' Association. He and his wife Gertrude were keen supporters of the University Climbing Club and helped us prepare and open the Unversity of London Climbing Hut in Derbyshire in the late 1960s. His greatest love was for the mountains in the Lake District and his sister, his nearest surviving relative, told us that they walked together over these hills during the Easter Vacation this year; she said "I could keep up with Laurence on the way up but could not match his pace on the way down".

Laurence Wigglesworth was a UCL man through and through; from being a student in the 1930s to becoming president of the Old Students' Association in 1975. He was appointed Assistant Lecturer in 1933 and remained with the College except for war service with the Admiralty and 2 years at the University of Manchester immediately after the war. He was promoted to Senior Lecturer in 1962 and was a Tutor in the Department of Mathematics from 1969 to 1979. Mr Wigglesworth was made a Fellow of University College London in 1978, a year before his retirement. A conscientious teacher, he was extremely able at involving students of engineering in Mathematics and his research interests were in Non-Linear Differential Equations and Elasticity. During the war his work involved the development of anti-magnetic mine devices and he became interested in Electromagnetic theory. It was while serving in the Admiralty that he worked with H. S. W. Massey (as well as with Peter Wright!) who was Professor of Applied Mathematics at UCL and who encouraged him to return to College when a vacancy occurred in 1947.

Another great love of the Wigglesworths complementary to the outdoors was music. Laurence, an accomplished cello player, and Gertrude, pianist, often played for the Chamber Music Society of the College, and were for many years the centre of the society. They were also keen country dancers. A gentle man, kind and helpful to everyone, Laurence will be missed by us all but recalling his life with us will cheer us up and we shall be glad to remember our friendship with him.

PUBLICATIONS* AND EXHIBITIONS

BY MEMBERS OF COLLEGE DEPARTMENTS
1 AUGUST 1986 — 31 JULY 1987

FACULTY OF ARTS

ANTHROPOLOGY

BURNHAM, P. 1987. Pastoralism and the Comparative Method. In *Comparative Anthropology,* 153-167. L. Holy (editor). (Oxford: Basil Blackwell).

HARRIS, R. L. 1987. *Power and Powerlessness in Industry.* (London: Tavistock.) 245 pp.

HOMEWOOD, K. (with Lewis, J.) 1987. Impact of drought on pastoral livestock in Baringo, Kenya 1983-85. *J. of Applied Ecology,* vol. 24, 615-632.

HOMEWOOD, K. (with Rodgers, W.) 1987. Pastoralism, conservation, and the overgrazing controversy. In *Conservation in Africa: Past Images and Present Realities,* D. Anderson and R. Grove (editors). (Cambridge University Press).

HOMEWOOD, K. (with Rodgers, W.) 1987. Pastoralism and conservation. Reprinted from *Human Ecology* as Part 8- Parks, conservation & tribals. In *Tribal Peoples and Development Issues,* J. Bodley (editor). (Mayfield Publishing Co., California).

HOMEWOOD, K. (with Rodgers, W. and Arhem, K.) 1987. Ecology of pastoralism in Ngorongoro Conservation Area, Tanzania. *J. of Agricultural Science* (Cambridge) vol. 108, 47-72.

HOMEWOOD, K. (with Rodgers, W.) 1987. Pastoralism and conservation. Reprinted from *Human Ecology* as Part 8: Parks, conservation and tribals. In *Heritage Resources Centre: Selected Readings* 1987. (Heritage Resources Centre, University of Waterloo, Ontario).

KAPFERER, B. 1986. Performance and the structure of meaning and experience. In *Anthropology of Experience,* V. W. Turner and E. Bruner (editors). (University of Illinois Press).

KAPFERER, B. (Editor.) 1987. *Power and Contradiction - Essays in Honour of Max Gluckman.* Special Issue No. 22, Social Analysis.

KAPFERER, B. 1987. Introduction. *Ibid.*

KAPFERER, B. 1987. Anthropology of Max Gluckman. *Ibid.*

KAPFERER, B. 1987. Nationalism and Transcendence: Relativism and Universalism in Anthropology. Keynote address to *Israel Association of Social Anthropology, Tel Aviv,* February 1987.

LANDERS, J. 1986. Mortality, weather and prices in London 1675-1825: a study of short-term fluctuations. *J. of Historical Geography,* vol. 12, no. 4, 347-364.

LANDERS, J. 1987. Mortality and metropolis: the case of London 1675-1825. *Population Studies,* vol. 41, no. 1, 59-76.

LANDERS, J. 1987. Mortality in Eighteenth Century London: A family reconstitution study. In *Living and Dying in London,* W. F. Bynum (editor). (London: Croom Helm).

* The expression 'publications' includes all forms of medium, provided the item is generally available to the public and is a work of original scholarship or research.

LAST, M. (with Chavunduka, G. L.) (editors) 1986. *The Professionalisation of African Medicine.* International African Seminars new series, no. 1. (Manchester: Manchester University Press for International African Institute) 293 pp.

LITTLEWOOD, R. 1986. La Migration des syndromes Lies a La Culture. *Synapse,* vol. 19, 34-38.

LITTLEWOOD, R. 1986. Russian Dolls and Chinese Boxes: An anthropological approach to the implicit models of cultural psychiatry. In *Transcultural Psychiatry,* J. Cox (editor). (London: Croom Helm).

LITTLEWOOD, R. 1986. Cultural psychiatry today. *Arbeitsegemeinschaft Ethnomedizine,* vol. 9, 9-16.

LITTLEWOOD, R. 1986. Ethnic minorities and the mental health Act: patterns of explanation. *Bull. of the Royal College of Psychiatrists,* vol. 10, 306-308.

LITTLEWOOD, R. 1986. Social Anthropology and British Psychiatry. *Anthropology Today,* vol. 2, 8-11.

LITTLEWOOD, R. 1986. The Butterfly and the Serpent. Keynote address presented to *The International Conference on 'Medical Anthropology',* Cambridge, 1986.

LITTLEWOOD, R. (with Lipsedge, M.) 1986. The 'Culture-Bound Syndromes' of the Dominant Culture. In *Transcultural Psychiatry,* J. Cox (editor). (London: Croom Helm).

MILLER, D. 1986. Exchange and alienation in the *Jajmani* system. *J. of Anthropological Research,* vol. 42, 535-556.

MILLER, D. 1987. *Material Culture and Mass Consumption.* (Oxford: Basil Blackwell). 240 pp.

RICHARDS, P. 1986. Evolutionary fallacies and ecological change: rice cultivation in West Africa. In *Humanokologie und Geographie* (zurcher Geographische Schriften), 183-195. D. Steiner and B. Wisner (editors). (Zurich: Eidgenossische Technische Hoschschule).

RICHARDS, P. 1986. *New models for low-resource agricultural research and extension in sub-Saharan Africa Office,* Office of Technology Assessment, US Congress, 1-79.

RICHARDS, P. 1987. The Politics of famine - some recent literature. *African Affairs,* vol. 86, 111-116.

ROWLANDS, M. (with Champion, T. C.) (Editors.) 1986. *Comparative Studies in The Development of Complex Societies.* (World Archaeological Congress: Allen & Unwin) 3 Vols.

ROWLANDS, M. (with Champion, T. C.) (Editors.) 1986. From simple to complex: a modernist fantasy in prehistory. *Ibid.,* vol. 1, 1-5.

ROWLANDS, M. (with Champion, T. C.) (Editors.) 1986. Colonialism, archaeology and constituting the African peasantry. *Ibid.,* vol. 3, 20-31.

ROWLANDS, M. 1986. Power and Moral Order in Precolonial West Central Africa. In *Specialisation and exchange in Complex Societies,* 15. E. Brumfield and T. Earle (editors). (Cambridge: Cambridge University Press).

ROWLANDS, M. 1986. Europe in Prehistory: a unique form of primitive capitalism. *Culture and History,* vol. 1, 63-79.

STRICKLAND, S. S. 1986. Long term development of Kejaman subsistence: an ecological study. In *Sarawak Museum J.* vol. XXXVI (57), 117-71.

WALLMAN, S. 1986.Ethnicity and the Boundary Process in Context. In *Theories of Race and Ethnic Relations,* 226-245. J. Rex and D. Mason (editors). (Cambridge: Cambridge University Press).

WALLMAN, S. 1986. The Boundaries of Household. In *Symbolising Boundaries: identity and diversity in British Cultures*, 50-70. A. P. Cohen (editor). (Manchester: Manchester University Press).

WALLMAN, S. 1986. Mimeo. Preliminary first report for a proposed study commissioned by London Docklands Development Corporation. *Social Impact of Canary Wharf.* 29 pp.

INSTITUTE OF ARCHAEOLOGY

EVANS, J. D. 1986. Archaeology in a cold climate: The Tenth Beatrice de Cardi Lecture. *Council for British Archaeology Report No. 36 for the Year ending 30th June, 1986.* 71-88.

EVANS, J. D. 1986. Anniversary Address. *The Antiquaries Journal,* vol. LXVI, Partl, 1-8.

EVANS, J. D. 1987. The First Half-Century - and After. Institute of Archaeology Golden Jubilee Lecture Series, No. 1. *Institute of Archaeology Bulletin,* vol. 24, 1-25.

PREHISTORIC ARCHAEOLOGY

BERGMAN, C. A. and GRIFFITHS, D. R. 1986. The heat treatment of chert in antiquity. In *The palaeolithic of Britain and its nearest neighbours: recent trends,* 92-4. S. N. Collcutt (editor). (Sheffield: Sheffield University Department of Archaeology).

BRAY, W. M. 1986. Finding the earliest Americans. *Nature,* vol. 321, 726.

BRAY, W. M. 1987. (with Fisher, J.). His Highness has need of gold: Spaniards, Indians, and gold in colonial Latin America. *Terra,* vol. 25 (4), 19-26.

GLOVER, I. C. 1986. Some European contributions to the prehistory of Indonesia: a personal view. *J. Indonesia Circle,* vol. 40, 5-16.

GLOVER, I. C. 1986. (with Andrews, R. G.). Ulu Leang, an Iron Age jar burial cave in South Sulawesi, Indonesia. *J. Indonesia Circle,* vol. 40, 47-64.

GLOVER, I C. 1987. Archaeological survey in west central Thailand: a second report on the 1982-1983 field survey. *Asian Perspectives,* vol. XXV (1), 83-109.

GLOVER, I. C. 1987. Chinese archaeology abstracted. *Antiquity,* vol. 61 (232), 290-2.

GRIFFITHS, D. R., SEELEY, N. J. (with Symons, M.C.R.) 1986. Investigation of chert heating conditions using ESR spectroscopy. In *The Scientific Study of Flint and Chert*, 259-260. G. de G. Sieveking and M. B. Hart (editors). Cambridge, April 1983. (Cambridge: Cambridge University Press) 62.

HODSON, F. R. 1986. Hallstatt: dry bones and flesh (Mortimer Wheeler Archaeological Lecture 1985). Proc. Brit. Acad., vol. LXXI, 187-201.

HODSON, F. R. 1986. A method for relating graves to social status: results from the Hallstatt cemetery. (Hallstatt Kolloquim Veszprem 1984). *Mitt. Arch. Inst. Ung. Akad. Wiss.*, Beih. 3, 87-92, 347-8.

NEWCOMER, M. H. (with Arndt, S.) 1986. Breakage patterns on prehistoric bone points: an experimental study. In *Studies in the Upper Palaeolithic of Britain and Northwest Europe* 165-73. D. A. Roe (editor), Oxford, October 1984. (Oxford: B.A.R.)

ORTON, C. R. 1986. Excavations at Roman Road/Parnell Road, Old Ford, E3: abrasive stones. *Trans. London Middlesex Archaeol. Soc.*, vol. 35, 35-6.

ORTON, C. R. 1986. (with Platts, E.). Sitewatching at Gardiner's Corner, Aldgate E1: Saxon, medieval and post-medieval pottery; building material; post-medieval glass. *Trans. London Middlesex Archaeol. Soc.*, vol. 35, 44-9.

STAHL, A. B. 1986. Early food production in West Africa: rethinking the role of the Kintampo culture. *Current Anthropology*, vol. 27, 532-6.

STAHL, P. W. 1986. Hallucinatory imagery and the origin of early South American figurine art. *World Archaeology*, vol. 18, 134-50.

STAHL, P. W. (with Norton, P.) 1987. Prehispanic animal domesticates from Salango, Ecuador. *American Antiquity*, vol. 52, 382-91.

ARCHAEOLOGY OF THE ROMAN PROVINCES

HASSALL, M. W. C. (with Tomlin, R. S. O.) 1986. Roman Britain in 1985. Part II. Inscriptions. *Britannia*, vol. xvii: 428-454.

HASSALL, M. W. C. 1987. Romans and Non-Romans. In *The Roman World*, vol. II, pt. 9, 685-700. John Wacher (editor). (London and New York: Routledge and Kegan Paul).

HASSALL, M. W. C. 7, 14, 21 and 28 September 1986. Radio 4. Origins. Africa of the Proconsuls.

REECE, R. M. (with Simon James) 1986. Identifying Roman Coins. (London: Seaby) 48 pp, 9 pp drawings.

REECE, R. M. 1986. The Roman coins. In *Cirencester Excavations III* 100-104. A. McWhirr (editor). (Cirencester publisher).

REECE, R. M. 1986. The effect of frontiers. In *Studien zu den Militargrenzen Roms*, 758-760, Berichte Baden Wurttemburg 20. (Stuttgart).

REECE, R. M. 1986. Cirencester the Central Place of the first millennium AD. In *Central places, archaeology and history* 41-46. E. Grant (editor). (Sheffield publisher).

REECE, R. M. (with David Whitehouse and others) 1986. Schola Praeconum II. *Papers of the British School at Rome*, vol. LIII, 163-210.

ROXAN, M. M. 1986. Observations on the reasons for changes in formula in diplomas circa AD 140, 265-292. In *Heer und Integrationspolitik: die römischen Militärdiplome als historische Quelle*, W. Eck and H. Wolff (editors). (Koln publisher).

ROXAN, M. M. 1986. Roman Military Diplomata and Topography. In *Studien zu den Militärgrenzen Roms II* 13 Internationaler Limeskongress, Aalen 1983: Vortrage. 768-778 (Stuttgart).

WILKES, J. J. 1986. Diocletian's Palace, Split: Residence of a Retired Roman Emperor (The Second Ian Sanders Memorial Lecture in Classical Archaeology). (Sheffield Department of Ancient History and Classical Archaeology Occasional Publications No. 2 University of Sheffield). 103 pp.

WESTERN ASIATIC ARCHAEOLOGY

HERMANN, G. 1986. *Ivories from Nimrud (1949-63), Fascicule IV [2 Vols]. Ivories from Room SW 37, Fort Shalmaneser.* (London: British School of Archaeology in Iraq.) 276 pp., 422 plates.

PARR, P. J. 1986. The Last Days of Petra. In *Proc. of the Symposium on Bilad al-Sham During the Byzantine Period* M. A. Bakhit and M. Asfour (editors), Amman, Jordan, 15-19 November 1983, 192-205.

BROTHWELL, D. R. 1986. *The Bog Man and the Archaeology of People.* (London: British Museum Publications.) 128 pp.

BROTHWELL, D. R. 1986. The remains of Lindow Woman. In *Lindow man: the Body in the Bog*, 52-53. I. M. Stead, J. B. Bourke and D. R. Brothwell (editors). (London: British Museum Publications).

BROTHWELL, D. R., DOBNEY, K. M. 1986. Studies on the hair and nails of Lindow Man and comparative specimens. *Ibid.*, 66-70.

BROTHWELL, D. R. 1986. The human bones. In *Excavations at Sarachane in Istanbul*, vol. 1, 374-98. R. M. Harrison (editor). (Princeton: Princeton University Press).

BROTHWELL, D. R. 1986. Biological characteristics. Evidence of micro-evolution in the Orkney Islanders. In *The People of Orkney*, 54-88. R. J. Berry and H. N. Firth (editors). (Kirkwall: Orkney Press).

DOBNEY, K. M., BROTHWELL, D. R. 1986. Dental calculus: its relevance to ancient diet and oral ecology. In *Teeth and Anthropology*, 55-81. E. Cruwys and R. Foley (editors). (Oxford: British Archaeological Reports International Series 291).

HARRIS, D. R. 1986. Plant and animal domestication and the origins of agriculture: the contribution of radiocarbon accelerator dating. In *Archaeological Results from Accelerator Dating*, 5-12. J. A. J. Gowlett and R. E. M. Hedges (editors). (Oxford: Oxford University Committee for Archaeology Monograph 11).

HARRIS, D. R. 1986. Foreward. *Ibid.*, 1-2.

HARRIS, D. R. 1987. Aboriginal subsistence in a tropical rain forest environment: food procurement, cannibalism, and population regulation in northeastern Australia. In *Food and Evolution. Toward a Theory of Human Food Habits*, 357-85. M. Harris and E. B. Ross (editors). (Philadelphia: Temple University Press).

HILLMAN, G. C. 1986. Plants and foods in ancient diet: the archaeological role of palaeofaeces in general and Lindow Man's gut contents in particular. In *Lindow Man: the Body in the Bog*, 99-115. I. M. Stead, J. B. Bourke and D. R. Brothwell (editors). (London: British Museum Publications).

HILLMAN, G. C., HOLDEN, T. (and others) 1986. Postscript: last minute results from ESR spectroscopy concerning the cooking of Lindow Man's last meal. *Ibid.*, 140-42.

HILLMAN, G. C. 1986. Spices and other plants from a Roman well at Caernarfon. In Excavations at Caernarfon 1976-77, by R. B. White, In *Archaeologia Cambrensis*, vol. 134, 101-103.

HILLMAN, G. C. (and others) 1986. Radiocarbon accelerator (AMS) dates for the Epipalaeolithic settlement at Abu Hureyra, Syria. *Radiocarbon*, vol. 28, 1068-76.

MACPHAIL, R. I. 1986. Paleosols in archaeology: their role in understanding Flandrian pedogenesis. In *Paleosols: their Recognition and Interpretation*, 263-91. V. P. Wright (editor). (Oxford: Blackwells Scientific Publications).

MACPHAIL, R. I. 1987. A review of soil science in archaeology in England. In *Environmental Archaeology: A Regional Review*, vol. II, 332-79. H. C. M. Keeley (editor). (London: Occasional Paper No 1, Historic Buildings and Monuments Commission for England).

MACPHAIL, R. I. (with Balaam, N. D. and Limbrey, S.) 1987. Soils and sediments. In *Research Priorities in Archaeological Science*, 14-16. P. Mellars (editor). (London: Council for British Archaeology).

MACPHAIL, R. I. (with Romans, J. C. C. and Robertson, L.) 1987. The application of micromorphology to the understanding of Holocene soil development in the British Isles, with special reference to early cultivation. In *Soil Micromorphology*, 647-56. N. Fedoroff, L. M. Bresson and M. A. Courty (editors). (Paris: Plaisir, Association Francaise pour l'Etude du Sol).

MACPHAIL, R. I. (with Allen, M. J.) 1987. Micromorphology and magnetic susceptibility studies: their combined role in interpreting archaeological soils and sediments. *Ibid.*, 669-76.

MACPHAIL, R. I. 1986. Soil report. In Barrow excavations in Norfolk, 1950-82, A. J. Lawson and R. Le Hegarat. *East Anglian Archaeology*, vol. 29, 65, microfiche E4-E6.

MACPHAIL, R. I. 1986. Soils. In Excavations at Heslerton, North Yorkshire 1978-82. D. Powesland, C. Haughton and J. Hanson (editors). *Archaeological Journal*, vol. 143, 62, microfiche M1/76-97, M2/1-10.

MACPHAIL, R. I. 1986. The Soils. In Excavations at Seaford Head Camp, East Sussex, 1983, by O. Bedwin. *Sussex Archaeological Collections*, vol. 124, 26-27.

MACPHAIL, R. I. (with McConnell, A.) 1986. Preliminary report on the sediments. In Excavation of the Lower Palaeolithic site at Amey's Eartham Pit, Boxgrove, West Sussex: a preliminary report, by M. B. Roberts. *Proc. of the Prehistoric Society*, vol. 52, 224-27.

SCAIFE, R. G. 1986. Pollen in human palaeofaeces; and a preliminary investigation of the stomach and gut contents of Lindow Man. In *Lindow Man: the Body in the Bog*, 126-35. I. M. Stead, J. B. Bourke and D. R. Brothwell (editors). (London: British Museum Publications).

SCAIFE, R. G. 1986. Flandrian palaeobotany. In *The Isles of Scilly. Field Guide*, 28-30. J. D. Scourse (editor). (Coventry: Quaternary Research Association).

SCAIFE, R. G. 1986. Higher moors, Lower moors. *Ibid.*, 73-79.

SCAIFE, R. G. 1987. The Late-Devensian and Flandrian vegetation of the Isle of Wight. In *Wessex and the Isle of Wight. Field Guide*, 156-80. K. E. Barber (editor). (Coventry; Quaternary Research Association).

SCAIFE, R. G. 1987. A review of later Quaternary plant microfossil and macrofossil research in southern England; with special reference to environmental archaeological evidence. In *Environmental Archaeology: A Regional Review*, vol. II, 125-203. H. C. M. Keeley (editor). (London: Occasional Paper No. 1, Historic Buildings and Monuments Commission for England).

SCAIFE, R. G. (with Balaam, N. D.) 1987. Archaeological pollen analysis. In *Research Priorities in Archaeological Science*, 7-10. P. Mellars (editor). (London: Council for British Archaeology).

SCAIFE, R. G. 1987. Pollen analysis and the later prehistoric vegetational changes of the Val Chisone. In *Balm Chanto: Un riparo solto roccia delleta del Rame Nelle Alpi Cozie*, 89-101. R. Nisbet and P. Biagi (editors). (Como: Archaeologia dell Italia Settentrionale 4).

SCAIFE, R. G. (with Macphail, G. M. and R. I. and Nisbet, R.) 1987. The present-day soils and vegetation; Appendix 8: Botanical Survey. *Ibid.*, 81-87, 140-41.

SCAIFE, R. G. 1986. Palynological investigation. In Excavation of the Lower Palaeolithic site at Amey's Eartham Pit, Boxgrove, West Sussex: a preliminary report, by M. B. Roberts. *Proc. of the Prehistoric Society*, vol. 52, 227-29.

THOMAS, K. D. 1986. Environment and subsistence in the Bannu Basin. In *Lewan and the Bannu Basin*, 13-33. F. R. Allchin, B. Allchin, F. A. Durrani and F. Khan (editors). (Oxford: British Archaeological Reports International Series 310).

THOMAS, K. D. 1986. Palaeobiological investigations. *Ibid.*, 121-36.

THOMAS, K. D. 1986. The bangles. *Ibid.*, 145-56.

THOMAS, K. D. 1986. The insects. In *The Red Tower (al-Burj al-Ahmar) Settlement in the Plain of Sharon at the Time of the Crusaders and Mamluks, A.D. 1099-1516*, 190. D. Pringle (author). (London: British School of Archaeology in Jerusalem).

THOMAS, K. D. 1987. Invertebrate Zooarchaeology. In *Research Priorities in Archaeological Science*, 23-25. P. Mellars (editor). (London: Council for British Archaeology).

THOMAS K. D. (with Allchin, F. R.) 1986. Radiocarbon dating of some early sites in north-west Pakistan. *South Asian Studies*, vol. 2, 37-43.

THOMAS, K. D. (with Khan, F. and Knox, J. R.) 1986. Sheri Khan Tarakai: a new site in the North West Frontier Province of Pakistan. *J. of Central Asia*, vol. 9, 13-34.

THOMAS, K. D. 1987. Prehistoric coastal ecologies: a view from outside Franchthi Cave, Greece. *Geoarchaeology*, vol. 2, 231-40.

THOMAS, K. D. and CARTER, S. 1987. The environmental history of the North Marden barrow. *Proc. of the Prehistoric Society*, vol. 52, 42-45.

THOMAS, K. D. (with Khan, F. and Knox, J. R.) The Bannu Archaeological Project: a study of prehistoric settlement in Bannu District, Pakistan. *South Asian Studies*, vol. 4, 83-90.

ARCHAEOLOGICAL CONSERVATION AND MATERIALS SCIENCE

BLACK, J. (editor) 1987. *Recent advances in the conservation and analysis of artifacts.* (London: Institute of Archaeology Summer Schools Press).

FABRIZI, M. and SCOTT, D. A. 1987. Unusual copper corrosion products and problems of identity. In *Recent advances in conservation and analysis of artifacts*, 131-133. J. Black (editor). (London: Institute of Archaeology Summer Schools Press).

GIANGRANDE, C. 1987. Identification of bronze corrosion products by infrared spectroscopy. In *Recent advances in conservation and analysis of artifacts*, 135-148. J. Black (editor). (London: Institute of Archaeology Summer Schools Press).

GRIFFITHS, D. R., SEELEY, N. J., (and Symons, M. C. R.) 1986. Investigation of chert heating conditions using ESR spectroscopy. In *The scientific study of flint and chert. Proc. of the 4th Int. flint symposium, Brighton Polytechnic, 10-15 April 1983*, 259-262. G. de G. Sieveking and M. B. Hart (editors). (Cambridge: Cambridge University Press).

JULEFF, J. 1987. The artifact conservation programme of the UNESCO - Sri Lanka Cultural Triangle Project. In *Recent advances in conservation and analysis of artifacts*, 347-354. J. Black (editor). (London: Institute of Archaeology Summer Schools Press).

PYE, E. M. (and Cronyn, J.) The archaeological conservator re-examined: a personal view. In *Recent advances in conservation and analysis of artifacts*, 355-358. J. Black (editor). (London: Institute of Archaeology Summer Schools Press).

SCOTT, D. A. 1986. Fusion gilding and foil gilding in pre-Hispanic Colombia and Ecuador. In *Metalurgia de America Precolombina*, 307-340. (Bogota: Banco de la Republica).

SCOTT, D. A. 1987. *Metallography of ancient metallic artifacts*. (London: Institute of Archaeology).

SCOTT, D. A., SEELEY, N. J. 1987. The washing of fragile iron artifacts. *Studies in Conservation*, vol. 32, 73-76.

SHEARER, G. L. 1987. Use of diffuse reflectance Fourier transform infrared spectroscopy in art and archaeological conservation. In *Recent advances in conservation and analysis of artifacts*, 253-256. J. Black (editor). (London: Institute of Archaeology Summer Schools Press).

TUBB, K. W. 1986. Statues from 'Ain Ghazal. *La Voie Royale: 9000 ans d'art au Royaume de Jordaine*. (Catalogue of exhibition, Paris, 26 November 1986 - 25 January 1987.)

TUBB, K. W. 1987. The lime-plaster figurines of 'Ain Ghazal. In *Recent advances in conservation and analysis of artifacts*, 387-391. J. Black (editor). (London: Institute of Archaeology Summer Schools Press).

WATSON, J. 1987. Suitability of waterlogged wood from British excavations for conservation by freeze drying. In *Recent advances in conservation and analysis of artifacts*, 273-276. J. Black (editor). (London: Institute of Archaeology Summer Schools Press).

FIELD ARCHAEOLOGY UNIT

CARTWRIGHT, C. R. 1986. Wood charcoal identification. In *La Cotte de St. Brelade 1961-1978. Excavations by C. B. M. McBurney*, 107. P. Callow and J. M. Cornford (editors). (Norwich: Geo Books).

CARTWRIGHT, C. R. 1986. Environmental Reports: Shale Fragment; Marine Molluscs; Charcoal. In: The Excavation of a Neolithic Oval Barrow at North Marden, West Sussex, 1982 (P. L. Frewett). *Proc. Prehistoric Soc.*, vol. 52, 31-51.

CARTWRIGHT, C. R. 1986. Agricultural Economy and Environment: Marine Molluscs; Geological Material; Charcoal. In: Excavations at the Late Prehistoric and Romano-British Enclosure Complex at Carne's Seat, Goodwood, W. Sussex, 1984. (R. Holgate). *Sussex Archaeol. Collections*, vol. 124, 35-50.

CARTWRIGHT, C. R. 1986. Environmental Reports: Charcoal; Marine Molluscs; Geological Material. In: Excavations at Lordington, Stoughton, West Sussex 1984 (R. Holgate). *Sussex Archaeol. Collection*, vol. 124, 244-251.

CARTWRIGHT, C. R. 1987. The Environmental Evidence: Charcoal. In: Excavation of a Cropmark Enclosure Complex at Woodham Walter, Essex, 1976 (D. G. Buckley and J. D. Hedges). *East Anglian Archaeology*, vol. 33, 1-83.

CARTWRIGHT, C. R. 1987. Shell Tool Technology and Use: Stone Artifacts; Ceramic Fabric Analysis. In: Archaeological Survey of Barbados (P. L. Drewett). *Barbados Mus. and Hist. Soc.*, vol. 38, no. 1; 44-80.

DREWETT, P. L. 1987. Archaeological Survey of Barbados. First Interim Report. *J. Barbados Mus. and Hist. Soc.*, vol. 38, no. 1; 44-80.

DREWETT, P. L. 1986. A Survey of Prehistoric Barbados. *Caribbean Conservation News*, vol. IV, no. 5, 16-18.

DREWETT, P. L. 1986. The Excavation of a Saxon Sunken Building at North Marden, West Sussex, 1982. *Sussex Archaeol. Collections*, vol. 124, 109-18.

DREWETT, P. L. 1986. The Excavation of a Neolithic Oval Barrow at North Marden, West Sussex, 1982. *Proc. Prehistoric Society.* vol. 52, 31-51.

GARDINER, M. F. (with McQuitty, A. M.) 1987. A Water Mill in Wadi El Arab, North Jordan and Water Mill Development. *Palestine Exploration Quarterly*, Jan-June 1987, 24-32.

HOLGATE, R. D. C. 1986. Excavations at the Late Prehistoric and Romano-British Enclosure Complex at Carne's Seat, Goodwood, West Sussex, 1984. *Sussex Archaeol. Collections*, vol. 124, 35-50.

HOLGATE, R. D. C. (with Holden, E. W. and Holden H. G.) 1986. An Early Mesolithic Site and Prehistoric Flintwork from Graffham Common and Neighbouring Areas on the Lower Greensand, West Sussex. *Sussex Archaeol. Collections*, vol. 124, 1-8.

HOLGATE, R. D. C. 1987. Neolithic Settlement Patterns at Avebury, Wiltshire. *Antiquity*, vol. 61, 259-63.

ROBERTS, M. B. 1986. Excavations of a Lower Palaeolithic Site at Amey's Eartham Pit, Boxgrove, W. Sussex. A Preliminary Report. *Proc. Prehistoric Society*, vol. 52, 215-245.

RUDLING, D. R. 1986. Westmeston Treasure Trove (1985). *Coin Hoards from Roman Britain*, vol. VI, 25-26.

RUDLING, D. R. 1986. A Hoard of Antoniniani from Westmeston, East Sussex. *Ibid.*, 143-146.

RUDLING, D. R. 1986. A Hoard of Roman Coins From Combe Hill, East Sussex. *Ibid.*, 147-155.

RUDLING, D. R. (with Shilling, P. C.) 1986. A Hoard from the Bath Area. *Ibid.*, 161-182.

CLASSICAL ARCHAEOLOGY

COLDSTREAM, J. N. 1986. The Geometric Lion-fighter from Kato Phana. In *Chios: a Conference at the Homereion in Chios, 1984*. John Boardman and C. E. Vaphopoulou-Richardson (editors). (Clarendon Press, Oxford) 181-186.

COLDSTREAM, J. N. 1986. Kition and Amathus: some reflections on their westward links during the Early Iron Age. In *Acts of the International Archaeological Symposium "Cyprus between the Orient and the Occident", 8-14 September 1985*. V. Karageorghis (editor). (Nicosia, Zavallis Press) 322-329.

COLDSTREAM, J. N. 1986. Mitteilungen: the International Archaeological Colloquim in Nicosia on "Cyprus between the Orient and the Occident". *Kadmos*, vol. 25, 168-170.

COLDSTREAM, J. N. (with Huxley, G. L.) 1987. Die Minoer auf Kythera. In *Ägäische Bronzezeit*, 137-148. H. G. Buchholz (editor). (Darmstadt: Wissenschaftliche Buchgesellschaft).

COLDSTREAM, J. N. 1986. *The Originality of Ancient Cypriot Art*. (Cultural Foundation of the Bank of Cyprus, Nicosia.) 36 pp.

COLDSTREAM, J. N. 1987, Zeit des Überfisses: die "homerische Kultur". In *Aphrodites Schwestern und christliches Zypern: 9000 Jahre Kultur Zyperns*, 69-78. H. Ganslmayr (editor). (Übersee-museum. Bremen).

COLDSTREAM, J. N. 1987. The Greek Geometric and Archaic Imports. In *Études Chypriotes VIII: la Nécropole d'Amathonte, tombes 113-367: II. Céramiques non chypriotes*, 21-31. V. Karageorghis, O. Picard, C. Tytgat (editors). (Nicosia, Fondation A. G. Leventis).

JOHNSTON, A. W. 1985. Pithoi; an addendum. *Bull. Inst. Class. Studies*, vol. 32, 117.

JOHNSTON, A. W. (with de Peyer, R.) 1986. Greek Antiquities from the Wellcome Collection: a distribution list. *J. Hell. Studies*, vol. 106, 286-294.
JOHNSTON, A. W. 9 June 1987, Radio 4, Woman's Hour, 'Classical Mythology'.

DUTCH

HERMANS, T. J. 1986. Literary Translation: the Birth of a Concept. *New Comparison*, Vol. 1, 28-42.
HERMANS, T. J. 1986. Grondige vegen, vurige tekens. Kroniek van de poëzie. *Neerlandica extra muros*, vol. 47, 67-71.
HERMANS, T. J. 1987. Komrij op den Parnas. Kroniek van de poëzie. *Neerlandica extra muros*, vol. 48, 22-26.
HERMANS, T. J, (with Boukema, H. and Van Seggelen, A.) (editors). *Negende Colloquium van docenten in de Neerlandistiek aan buitenlandse universiteiten*. (The Hague, IVN.) 379pp.
HERMANS, T. J. 1986. Verslag werkbijeenkomst poëzie. *Ibid.*, 239-246.
HERMANS, T. J. (editor) 1986. *New Comparison*, vol. 1, Literary Translation and Literary System. 127 pp.
HERMANS, T. J. (with Klein, H.) (editors) 1987. *New Comparison*, vol. 3, Comedy. 179 pp.
HERMANS, T. J. (with Claes, P., D'haen, C. and Lovelock, Y.) (translators) 1986. *Hugo Claus, The Sign of the Hamster*. (Leuven: Leuvense Schrijversaktie), 91 pp.
HERMANS, T. J. (translator) 1986. Mark Insingel, That Is To Say. *Prospice*, vol. 18, 28-58.
HERMANS, T. J. (with Gilbert, L.) (translators) 1986. Joost van den Vondel, Introduction to Dutch Poetry. *Dutch Crossing*, vol. 29, 50-63.
FENOULHET, Jane. 1987. *Dutch Verbs Simplified*. (London, Hugo's Language Books), 96 pp.
FENOULHET, Jane. 1986. *Dutch in Three Months* (Third impression, revised). (London: Hugo's Language Books), 190 pp.
FENOULHET, J.; HERMANS, T. J.; MEIJER, R. P. 1986. Supervision of *Van Dale Groot woordenboek Nederlands-Engels*. (Utrecht/Antwerpen, Van Dale Lexicografie.) 1560 pp.
MEIJER, R. P. 1986. De stem van de schrijver en die van zijn personages. Kroniek van het proza, *Neerlandica extra muros*. vol. 47, 72-77.
MEIJER, R. P. 1987. Scheuringen in kerk en commune. Kroniek van het proza. *Neerlandica extra muros*, vol. 48, 15-21.
MEIJER, R. P. 1987. Introduction to Multatuli, *Max Havelaar or The Coffee Auctions of the Dutch Trading Company*. (London: Penguin Books), 1-13.
VINCENT, P. F. (translator) 1987. W. Bilderdijk, *A Short Account of a Remarkable Aerial Voyage and Discovery of a New Planet*, (Paisley, Wilfion Books, Unesco.) 59 pp.
VINCENT, P. F. 1987. Introduction. *Ibid.*, 1-8.
VINCENT, P. F. (translator) 1987. Nuis, A., *The Lay of the Lowlands. A Literary Map*. (Amsterdam: Foundation for the Promotion of the Translation of Dutch Literary Works), 60 pp.

BLUNDELL, R. W. 1986. Econometric approaches to life-cycle labour supply and commodity demand. *Econometric Review*. vol. 5 no. 1, 89-146.

BLUNDELL, R. W., MEGHIR, C. 1987. Bivariate alternatives to the Tobit model. *J. of Econometrics*, vol. 34, 179-200.

BLUNDELL, R. W., MEGHIR, C. (with Ham, J.) 1987. Unemployment and female labour supply. *Economic J.*, vol. 97, 44-64.

CHICK, V. 1986. The evolution of the banking system and the theory of saving, investment and interest. *Economies et Societes*, No. 3, 111-126.

CHICK, V. 1987. Money matters. *Times Higher Education Supplement*, January 2, 8.

GOODMAN, D. E. (with Sorj, B. and Wilkinson, J.) 1987. *From Farming to Biotechnology. A Theory of Agro-Industrial Development*. (Oxford: Basil Blackwell.) 202 pp.

GOODMAN, D. E. (with Rama R.) 1987. *Socio-Economic and Technological Developments in the European Catering Industry: Evidence from the United Kingdom, Spain, and France*. (Brussels: FAST Occasional Papers No. 143, Directorate-General for Science, Research and Development, Commission of the European Communities.) 78 pp.

GOODMAN, D. E. (with Redclift, M. R.) 1987. Paths of transition. In *Sociology of "Developing Societies" Latin America*, 163-177. E. P. Archetti, P. Cammack and B. Roberts (editors). (London: Macmillan).

HEADY, C. J. (with Mitra, P. K.) 1987. Optimum taxation and shadow pricing in a developing country. In *The Theory of Taxation for Developing Countries*, 407-425. D. Newbery and N. Stern (editors). (Oxford: Oxford University Press).

HEADY, C. J. (with Mitra, P. K.) 1986. Optimal taxation and public production in an open dual economy. *J. of Public Economics*, vol. 30, 293-316.

HEADY, C. J. (with Mitra, P. K.) 1986. The quantitative analysis of optimal taxation and public production. *Economic Perspectives*, vol. 4, 45-90.

HEADY, C. J. 1987. Designing taxes with migration. *Economic J.*, vol. 97, 87-98.

HEADY, C. J. (with Mitra, P. K.), 1987. Distributional and revenue raising arguments for tariffs. *J. of Development Economics*, vol. 26, 77-101.

LAL, D. 1986. Stolper-Samuelson-Rybczynski in the Pacific - real wages and real exchange rates in the Philippines 1956-1978. *J. of Development Economics*, vol. 21, no. 1, 181-204.

LAL, D. 1986. Comment. In *Economic Liberalisation in Developing Countries*, 217-218. A. M. Choksi and D. Papageorgiou (editors). (Oxford: Blackwell).

LAL, D. 1987. Poor countries and the global economy: crisis and adjustment. In *Global Economic Imbalances*, 65-80. C. Fred Bergsten (editor). (Washington, D.C.: Institute for International Economics).

LAL, D. 1987. The Political Economy of Economic Liberalisation, *World Bank Economic Review*, vol. 1, no. 2, 273-299.

LAL, D. 1987. Comment on A. C. Herberger. *Pioneers in Development - Second Series*, 193-202. G. Meier (editor). (New York: Oxford University Press).

LAL, D. (with Rajapatirana, S.) 1987. Foreign trade regimes and economic growth in developing countries. *World Bank Research Observer*, vol. 2, no. 2, July.

MARKANDYA, A., PEMBERTON, M. (with Hall, S. G., Henry, S. G. B.) 1986. Disequilibrium models with rational expectations. An application to the UK labour market. *Economics letters*, vol. 21, 215-220.

MARKANDYA, A., PEMBERTON, M. (with Hall, S. G., Henry, S. G. B.) 1987. The UK labour market: equilibrium or disequilibrium? *Lloyds Bank Review*, no. 165.

PEARCE, D. W. 1986. Future world energy developments and the Gulf States. *Dinar*, vol. 1, no. 7, 30-3.

PEARCE, D. W. 1987. *Economic Values and the Natural Environment*, The 1987 Denman Lecture, Department of Land Economy, University of Cambridge, 20 pp.

PEARCE, D. W. 1987. Foundations of an ecological economics, *Ecological Modeling*, no. 38, pp. 1-10.

PEARCE, D. W., MARKANDYA, A. 1986. *The Economic Benefits of Environmental Improvement*. (Romford: Environmental Research Trust.) 64 pp.

PIGATO, M. A. 1987. The 'Big Bang' at the London Stock Exchange: structural changes and prudential issues. *Il Risparmio*, May-June, 1-30.

SPRAOS, J. 1986. Cartelisation for efficient planning. *Int. J. of Development Planning Literature*, vol. 1, 385-395.

SPRAOS, J. 1986. IMF Conditionality: ineffectual, inefficient, mistargeted, (Princeton) *Essays in International Finance*, no. 166, 1-29.

STEWART, M. (with Jay, P.) 1987. *Apocalypse 2000: Economic Breakdown and the Suicide of Democracy 1989-2000*. (London: Sidgwick & Jackson.) 254 pp.

STEWART, M. 1987. Shifting to the right: the price. *Political Quarterly*, July, vol. 58, no. 3, 254-262.

STEWART, M. 1987. Hattersley's Specifics. Review of Roy Hattersley 'Choose Freedom: the Future for Democratic Socialism', and Keith Middlemas 'Power, Competition and the State. vol. I: Britain in Search of Balance, 1940-61.' *London Review of Books*, vol. 9, no. 6, 19 March.

STEWART, M. 1987. Nanny knows best. Review of Michael Leapman 'Kinnock', John Cole 'The Thatcher Years: a Decade of Revolution in British Politics', Dennis Kavanagh 'Thatcherism and British Politics: the End of Consensus?' and David Green 'The New Right: the Counter-Revolution in Political, Social and Economic Thought.' *London Review of Books*, vol. 9, no. 11, 4 June.

SYMONS, J. (with Newell, A.) 1987. Laissez-faire and the rise in unemployment. *European Economic Review*, vol. 31, no. 3, 567-601.

SYMONS, J. 1987. Comments on the Blanchard and Summers Papers. *European Economic Review*, vol. 31, no. 3, 560-564.

VAUGHAN, R. N. 1987. Welfare approaches to the measurement of poverty. *Economic J.*, vol. 97, supplement, 160-170.

VELJANOVSKI, C. 1987. *Selling the State: Privatisation in Britain*. London: Weidenfeld and Nicholson. 300 pp.

VELJANOVSKI, C. 1986. The Economics of criminal Law and Procedure. *Coexistence* (1986), vol. 23, 37-153. Also version in Russian as 'Ekonomischeskie aspekty ugolovnoi iustitsii', Savitskii, V. M. ed., SSSR-Anglia: Iustitsiia I Stravnital' noe Pravovedenic, Moscow: USSR Academy of Sciences, 1986; Also in W. E. Butler, ed., *Justice and Comparative Law* (Martinus Nijhoff, 1987).

VELJANOVSKI, C. 1986. Legal theory, economic analysis and the law of torts. In *Legal Theory and Common Law*. W. Twining (editor). (Oxford: Basil Blackwell), 214-37.

VELJANOVSKI, C. 1987. Cable television - agency franchising and economics. In *Regulation and Public Law*. R. G. Baldwin and B. McCrudden, eds.) (London: Weidenfeld and Nicholson.) 152-84.

VELJANOVSKI, C. 1986. Deregulation in Britain. *IPA Review*, Aut. 1986, vol. 40, no. 1, 38-39.

VELJANOVSKI, C. 1987. Mrs. Thatcher's Worker Capitalists, *IPA Review*, Feb./April 1987, vol. 40, no. 4, 37-39.

VELJANOVSKI, C. 1987 Monopoly Manacles the Capital Market. *Economic Affairs*, Feb./March 1987, vol. 7, no. 3, 20-22.

WEBER, G. (with Pissarides, C. and Smith, S.) 1986. Evidence from survey discrepancies. In *Britain's Shadow Economy*, 137-156. S. Smith (editor). (Oxford: Oxford University Press).

EGYPTOLOGY

ADAMS, B. G. 1986. *Sculptured Pottery from Koptos*. (Warminster: Aris and Phillips.) 51 pp., 30 pls.

ADAMS, B. G. 1986. Excavating old archaeologists. *Nekhen News*, vol. III, no. 1, 3-4.

CAMINOS, R. A. 1987. Magia per i morti - Magic for the dead. In *La Magia in Egitto ai tempi dei faraoni*, 147-159, A Roccati and A. Siliotti (editors). (Milan and Verona: The Municipality of Milan).

CAMINOS, R. A. 1986. Wadi Schatt er-Rigale. In *Lexikon der Ägyptologie* VI, 1121-1124, W. Helck and W. Westendorf (editors). (Wiesbaden: Otto Harrassowitz).

CAMINOS, R. A. 1986. Some comments on the re-use of papyrus. In *Papyrus: Structure and Usage*, 43-61, M. L. Bierbrier (editor). (London: British Museum).

CAMINOS, R. A. 1987. Epigraphy in the field. In *Problems and Priorities in Egyptian Archaeology*, 55-67, 7 pls., J. Assman, G. Burkand and W. V. Davies (editors). (London: Kegan Paul International).

HALL, R. M. 1986. "Crimpled" garments: a mode of dinner dress. *Discussions in Egyptology*, vol. 5, 37-45, 3 figs.

HALL, R. M. 1987. Unwrapping linen in Hildecheim. *UCL Bulletin*, vol. 7, no. 3, 13.

HALL, R. M. 1987. Petrie Museum ivories on show in Germany. *UCL Bulletin*, vol. 7, no. 4, 5.

HANKEY, V. 1986. A sherd in the simple style of Mycenaean IIIB. In *Izbet Sartah: an early Iron Age site near Rosh Ha'ayin, Israel*, 99-103, Finkelstein (editor). (Oxford: BAR International Series).

JANSSEN, J. 1987. The day the inundation began. *J. of Near Eastern Studies*, vol. 46, 129-136.

JANSSEN, J. 1986. Agrarian Administration in Egypt during the Twentieth Dynasty. *Bibliotheca Orientalis*, vol. 43, 351-366.

JANSSEN, J. 1986. Review article of M. Atzler *Untersuchungen zur Herausbildung von Herrschaftsformen in Ägypten. Bulletin de la Société d'Égyptologie, Genève*, vol. 11, 133-138.

JEFFREYS, D. G. 1986. Interim report on the Memphis Project. *Newsletter of the Institute of Egyptian Art and Archaeology, Memphis State University*, 4-7.

MARTIN, G. T. (with Raven, M. J., Aston, D. A.) 1986. The tomb-chambers of Iurudef: preliminary report on the Saqqara excavations, 1985. *J. of Egyptian Archaeology*, vol. 72, 15-22.

MARTIN, G. T. 1986. UCL rediscovers the tomb of Maya. *University College London Old Students Association News*, 40-41.

MARTIN, G. T. 1987. 'Erotic' figurines: the Cairo Museum material. *Göttinger Miszellen*, vol. 96, 71-84.

MARTIN, G. T. (with Reeves, C. N.) 1987. An unattested funerary cone. *Göttinger Miszellen*, vol. 95, 63-64.

ROBINS, R. G. (with Shute, C. C. D.) 1986. Predynastic Egyptian stature and physical proportions. *Human Evolution*, vol. 1, no. 4, 313-324.

SETON-WILLIAMS, M. V. 1987. *Egyptian Poems*. (Braunton, Devon: Merlin Books). 40 pp.

SMITH, H. S., JEFFREYS, D. G. (with Malek, J.) 1986. Memphis 1984. *J. of Egyptian Archaeology*, vol. 72, 1-14, 8 figs.

ENGLISH

ASHTON, ROSEMARY (editor). 1987. Mrs. Humphry Ward, *Robert Elsmere* (Oxford: Oxford University Press.) 585 pp.

DANIELL, D. J. 1986. Shakespeare and the traditions of comedy. In *The Cambridge Companion to Shakespeare Studies*, 101-121. Stanley Wells (editor). (Cambridge: Cambridge University Press).

DANIELL, D. J. (with Holdsworth, R. V., Jackson, R., and Dean, P.) 1987. Shakespeare. In *the Year's Work in English Studies Vol. 65 1984*, 184-236. Laurel Brake (editor). (London: John Murray for The English Association).

DANIELL, D. J. 16 April 1987. Radio 4, Bookshelf.

GREENBAUM, S. 1986. English Language Studies and ESL Teaching. In *Problems of Standardization and Linguistic Variation in Present-Day English*, 23-35. G. Nickel and J. Stalker (editors). (Heidelberg: Julius Groot).

GREENBAUM, S. 1986. The *Grammar of Contemporary English* and the *Comprehensive Grammar of the English Language*. In *The English Reference Grammar*, 6-14, G. Leitner (editor). (Tübingen: Niemeyer).

GREENBAUM, S. 1986. Spelling Variants in British English. *J. of English Linguistics*, vol. 19, 258-268.

GREENBAUM, S. 1986. English and a Grammarian's Responsibility: The Present and the Future. *World Englishes*, vol. 5, 189-195.

HORNE, PHILIP, 1987. Independent beauty. Review of Henry James's criticism. *J. of American Studies*, vol. 21, 87-93.

HORNE, PHILIP, 1987. Relations will stop at nothing. Review of *The Whole Family*, a novel by 12 authors. *London Review of Books*, vol. 9, no. 5, 5 March.

ILSON, R. F. (with Benson, M. and Benson, E.) 1986. *Lexicographic Description of English*. (Amsterdam/Philadelphia: John Benjamins Publishing Company.) xiii, 288 pp.

ILSON, R. F. (with Benson M. and Benson E.) 1986. *The BBI Combinatory Dictionary of English: A Guide to Word Combinations*. (Amsterdam/Philadelphia: John Benjamins). xxvi, 286 pp.

ILSON, R. F. 1986. Lexicographic Archaeology: Comparing dictionaries of the same family. In *The History of Lexicography*. 127-137. R. R. K. Hartmann (editor): (Amsterdam/Philadelphia: J. Benjamins).

ILSON, R. F. 1986. General English Dictionaries for Foreign Learners: Explanatory Techniques in Dictionaries. *Lexicographica*, vol. 2, 214-222.

ILSON, R. F. (editor) (with Blanc, M.) 1986. *A Spectrum of Lexicography: Papers from AILA Brussels 1984. (Polyglot:* Department of Applied Linguistics, Birkbeck College vol. 7, fiches 1 & 2).

ILSON, R. F. 1986. Towards a Taxonomy of Dictionary Definitions. In *A Spectrum of Lexicography.* fiche 1, F1-G1. R. F. Ilson and M. Blanc (editors). (*Polyglot:* Department of Applied Linguistics, Birkbeck College, vol. 7, fiches 1 & 2).

JACOBSON, DAN. 1987. Introduction to *From a Land Far Off: A Selection of South African Yiddish Stories*, vii-xiii, Joseph Sherman (editor). (Cape Town: Kaplan Institute, University of Cape Town).

JACOBSON, DAN. 1987. *Her Story.* (London: Andre Deutsch). 142 pp.

JACOBSON, DAN. 1987. In a Lost Language. *Encounter*, vol. LXIX, no. 2, 54-58.

JACOBSON, DAN. 1987. The Brontës, again. *Grand Street*, vol. 6, no. 4, 225-233.

KARLIN, D. R. (editor). 1987. Rudyard Kipling, *The Jungle Books*, (Penguin Classics). 384 pp.

MILLER, K. 1986. Poor boys: literary naturalism and the working class. *London Review of Books*, vol. 8, no. 16, 8-9.

MILLER, K. 1986. Ariel goes to the police: the fiction of Milan Kundera and Ivan Klima. *London Review of Books*, vol. 8, no. 21, 10-12.

MILLER, K. 1987. Things: Ghosts in Modern Literature. *London Review of Books*, vol. 9, no. 7, 13-15.

NEWALL, VENETIA 1986. Frosch. In *Enzyklopädie des Märchens*, vol. 5, 393-401. K. Ranke (editor). (Berlin: Walter de Gruyter).

NEWALL, VENETIA 1986. Egg. In *The Encyclopedia of Religion*, vol. 5, 36-7. Mircea Eliade (editor). (New York and London: Macmillan).

NEWALL, VENETIA 1986. Fairies. *Ibid.*, 246-250.

NEWALL, VENETIA 1986. The Castle of Sewingshields: History and Legend. *Folklore*. Sofia: The Bulgarian Academy of Sciences, vol. 12, 20-36.

NEWALL, VENETIA 1986. Folklore and Male Homosexuality: The Presidential Address to the Folklore Society. *Folklore*, vol. 97, 123-147.

PALMER, K. J. 1987. Iago's Questionable Shapes. In *Fanned and Winnowed Opinions: Shakespearean Essays Presented to Harold Jenkins*, 184-201. John W. Mahon and Thomas A. Pendleton (editors). (London. Methuen).

QUIRK, R. (with Toyota, M.) 1986. *On the Use of English*. (Tokyo: Kenkyusha). vi+ 64 pp.

QUIRK, R. 1987. *Words at Work: Lectures on Textual Structure*. (London: Longman). 137 pp.

QUIRK, R. 1986. The future role of English in Hong Kong. In *Future Directions in English Language Teacher Education*, 3-8. V. Bickley (editor). (Hong Kong Education Department).

QUIRK, R. 1986. Opening Remarks. In *Lexicography: an Emerging International Profession*, 1-6, R. F. Ilson (editor). (Manchester University Press).

WALKER, K. (editor). 1987. *John Dryden*. (Oxford: Oxford University Press. The Oxford Authors). 967 pp.

WALKER, K. 1986. In plain brown wrapper. Review of John McRae (editor) *Teleny* by Oscar Wilde and others, *TLS*, no. 4,368, p. 1427.

WALKER, K. 1987. Analysis by citation. Review of Robert DeMaria, *Johnson's "Dictionary" and the language of learning*, *TLS*, no. 4,375 p. 123.

WALKER, K. 1987. At Bar and board. Review of Irma S. Lustig and Frederick A. Pottle *Boswell: the English experiment, 1785-1789. TLS*, no. 4,383, p. 347.

WEIS, René J. A. 1986. Dissent and Moral Primitivism in *King Lear. English*, vol. xxxv, no. 135, 197-218.

WEIS, René J. A. 1986. The new Shakespeare. Review article of Stanley Wells and Gary Taylor (editors), *The Complete Works of William Shakespeare, Times Higher Education Supp.*, no. 730, p. 15.

WINTLE, S. E. (editor). 1987. Rudyard Kipling, *Puck of Pook's Hill* (Harmondsworth: Penguin Books). 231 pp.

WOUDHUYSEN, H. R. (editor). 1987. Rudyard Kipling, *Plain Tales from the Hills*, (Harmondsworth: Penguin Books).

WOUDHUYSEN, H. R. (with Boswell, Jackson, C.) 1987. Some unfamiliar Sidney allusions. In *Sir Philip Sidney: 1586 and the Creation of a Legend*, 221-237. Jan van Dorsten, Dominic Baker-Smith and Arthur F. Kinney (editors). (Leiden: Publications of the Sir Thomas Browne Institute NS 9).

WOUDHUYSEN, H. R. 1986. *Astrophel and Stella* 75: a "New" Text, *Review of English Studies*, NS, vol. xxxvii, 388-92.

WOUDHUYSEN, H. R. 1986. Enigmatic relations. Review of John Gous (editor). *The Prose Works of Fulke Grenville, Lorde Brooke, TLS*, no. 4,350, p. 895.

SLADE SCHOOL OF FINE ART

BARLOW, PHYLLIDA, *Solo Exhibitions:*

A System of Support - Works for shelves, Kettle's Yard, Cambridge, May-June 1987.

Oracle - a work for the Cambridge Festival, Kettle's Yard, Cambridge, July 1987.

Group Exhibitions:

Third Generation, Canterbury - chosen site opposite railway station, September-October 1986.

Casting an Eye - selected by Alison Wilding and Richard Deacon, The Corner House, Manchester, January-February 1987.

Articles/Books:

Performance Mag - review of Third Generation, 1986.

Arts Review - review of Casting an Eye, 1986.

Flash Art - review of Casting an Eye, 1986.

Artscribe - review of Casting an Eye, 1986.

TV/Radio:

Kent Radio - interview in connection with Third Generation Exhibition, September 20, 1986.

BOWEN, RON, *Solo Exhibitions:*

Two part serial show, Atlas, London, August-September 1986.

Commission: The Belvedere Tower Mural, Chelsea Wharf, London, opens August 1987.

CAMP, JEFFERY, *Solo Exhibitions:*

Jeffery Camp, London and Venice, Nigel Greenwood Gallery, London, November 1986.

Group Exhibitions:

On A Plate, West Surrey College of Art and Craft and Serpentine Gallery, London, 1987.

A Cabinet of Drawings, Gimpel Fils Gallery, London, December 1986.
Cityscape - The Changing Face of London, Arthur Anderson & Co, London, 1986.

DAGLISH, PETER, *Solo Exhibition:*
Mitsuko (paintings and prints), Kapil Jariwala Gallery, London, January-February 1987.
Group Exhibitions:
Nine Artists, The Gallery, Chelsea School of Art, London, September-October 1986.
Reflections of Summer, Bankside Gallery, London, January-February 1987.
P.M.C. National Print Exhibition, Royal Festival Hall, London, January-February 1987.
Chelsea Box Prints, Angela Flowers Gallery, London, March 1987.
Inscape, Fine Art Dept, Maidstone, April 1987.
Selected Artists, St James Church, W11, May 1987.
Royal Academy Summer Exhibition, Royal Academy, London, June-August 1987.

DOS SANTOS, BARTOLOMEU, *Solo Exhibitions:*
Galerie Kreth D'Orey, Heidelberg, November 1986.
Rohtas Gallery, Islamabad, April 1987.
Chawkandi Gallery, Karachi, April 1987.
Retrospective, University of Minho, Braga, April 1987.
Credit Bank, Luxembourg, May 1987 and Dusseldorf, June 1987.
Group Exhibitions:
1st Baghdad Arts Festival, Saddam Arts Centre, November 1986.
Arte Contemporaneo Portugues, Museo de Arte Contemporaneo, Madrid, February 1987.
ARCO 87, Madrid, February 1987.
Night Prints, Arts Council travelling exhibition, 1987.
Exp. de Artes Plasticas, Centro Cultural das Descobertas, Lisbon, August 1986.
Prints 87, Royal Festival Hall, London, January 1987.

HOYLAND, JOHN, *Group Exhibitions:*
Exhibited in Waddington Graphics, publishers of Contemporary Prints, Waddington Graphics, London.
Exhibited in *'Works on Paper'*, Waddington Galleries, London.
'British Art in the 20th Century', Royal Academy and Stuttgart, Germany.
Solo Exhibitions:
One man exhibition, Waddington Sheil Galleries, Toronto, Canada, 1986.
One man exhibition, Waddington Galleries, London, Oxford Gallery, Oxford, 1987.
Designed sets and costumes for the Ballet Rambert, Zansa.

HEAD, TIM, *Group Exhibitions:*
Contrariwise - Surrealism and Britain, Glynn Vivian Art Gallery, Swansea and tour, 1986-1987.
15th John Moores Liverpool Exhibition, Walker Art Gallery, Liverpool, 1987.
Appropriate Pictures, Anthony Reynolds Gallery, London, 1987.
The British Edge, ICA, Boston, USA, 1987.

HILLIARD, JOHN, *Solo Exhibitions:*
Provincial Museum, Hasselt, November 1986.
Sprengel Museum, Hanover, April 1987.
Group Exhibitions:
Kunst Raum/Raum Kunst, Schloss Buchberg, Austria, September 1986.
Prospect 86, Schirn Kunsthalle, Frankfurt, September 1986.
Blow Up, Kunstverein, Stuttgart, February 1987.

Heavenly Embrace, Baskerville and Watson Gallery, New York, May 1987.
Königreich, Forum Stadtpark, Graz, June 1987.
Books/Articles:
Schieburn Mit Offenen Karten, Jorg-Uwe Albig, Art No. 9, Hamburg, 1986.
Fotografie Digital, interview by Justin Hoffman, *Junstforum* No. 88, Cologne, 1987.
Satellite, introduction to Anthony Wilson catalogue, Riverside Studios, London, 1987.

JARAY, TESS, Platforms for Artists - a touring exhibition organised by B.R. in partnership with Gateshead Borough Council, 1987.
Commissioned to design brick paving floor for Midlands Arts Centre, Birmingham, 1987.
Group Exhibitions:
The Unbroken Line - 50 years of British Drawing 1936-1986, Gillian Jason Gallery, London, 1986.

JONES, STANLEY, *Group Exhibitions:*
Arthur Andersen Collection.
Recent Acquisitions, London, October-November 1986.
Australian National Gallery, Artist and Printer, Canberra, November 1986-May 1987.
Books/Articles:
Article: Ceri Richards and Stanley Jones by Pat Gilmour, 1987
Books: John Piper - Graphic Work (Orde Levinson) 1987 Faber & Faber.
Post War Printmaking by Glenn Sujo (editor) 1987 Arthur Andersen & Co.

LEVERETT, DAVID, *Group Exhibitions:*
Serious Options, Genet Gallery, New Jersey, USA.
Camden Annual, Camden Arts Centre, London.
Decade Exhibition, Dublin.
National Festival Hall, London.
Reprise, Genet Gallery, New Jersey, USA.
Commission: Sheraton Hotel, Copenhagen, Denmark.

McFADYEN, JOCK, *Solo Exhibitions:*
Northern Centre for Contemporary Art, November-December 1986.
Birmingham Museum and Art Gallery, January-March 1987.
Stoke-on-Trent Museum and Art Gallery, March-April 1987.
Bolton Museum and Art Gallery, July-August 1987.
Dublin Arts Council, September 1987.
Ferens Gallery, Hull, October-November 1987.
Arts Council Gallery, Belfast, January-February 1988.
Camden Arts Council, London, February-March 1988.
Mixed Exhibitions:
Athena, Barbican, February 1987.
Whitechapel.

NEAGO, PAUL, *Solo Exhibitions:*
Catalytic Sculpture, Court System, Gallery K, Tokyo, August 1986.
In-Form-Ings, Curwen Gallery, London, April-May 1987.
Nine Catalytic Stations, Serpentine Gallery, London, April-May 1987.
Group Exhibitions:
Chicago International Art Exhibition, Contemporary British Art, Curwen Gallery, London, May 1987.

Winning International Sculpture Competition, Westminster City, Coutts Bank, London, Commission for Charing Cross Station, London, Strand, March 1987.
Art and Architecture Exhibition, Scott Howard Showrooms, London, July 1987.
Books/Articles:
Arts Review - art review of show by Jane Norrie at Serpentine, April 1987.
Arts Monthly - review by P. Overy, May 1987.
TV/Radio:
Romanian Section, Cultural Programme, BBC Worldwide - in conversation with Marin Tarangul (Art Historian).

REGO, PAULA, *Solo Exhibition:*
Edward Totah Gallery, March 1987.
Group Exhibitions:
Current Affairs (British Art), British Council Show travelling to Budapest, Prague and Warsaw.
MOMA (Oxford), March 1987.

SUTTON, PHIL, *Solo Exhibition:*
Ceramics, Odette Gilbert Gallery, London, July-August 1987.
TV/Radio:
World Service - Meridian, June/July 1987.

UGLOW, EUAN, *Group Exhibition:*
Browse & Darby, London, 1987.
Books/Articles:
Drawings reproduced, Stand Magazine, 1987.

VOLLEY, JO, *Group Exhibition:*
A Reputation Amongst Artists, Travelling, November 1986 - July 1987.

WELSBY, CHRIS, *Solo Exhibition:*
Skylight installation, Cambridge Darkroom Gallery, August.
Group Exhibitions:
Charting Time, Serpentine Gallery, August.
Art in the Cinema, National Film Theatre, November.
Avant Garde Landscape Film, Cambridge Darkroom Gallery, August.
European Avant Garde Film, Millenium, N.Y.C., USA, January 1987.
Books/Articles:
Millenium Film Journal, N.Y.C., USA, Nos 16/17/18, 1987.

WILDING, Alison, *Solo Exhibitions:*
Galeri Lang, Malmo 1987.
Karsten Schubert, London, 1987.
Group Exhibitions:
Prospect 86, Kunstverein, Frankfurt, 1986.
Jeffrey Dennis, Alan Green, Alison Wilding - Third Eye Centre, Glasgow, 1986.
Dominico Bianchi, Antony Gormley, Roberto Pace, Alison Wilding, Salvator Ala, Milan, 1986.
Casting An Eye, Cornerhouse, Manchester, 1987.
Current Affairs, British Painting and sculpture in the 1980's, 1987; MOMA, Oxford. British Council Touring, Mücsarnok, Budapest; Narodni Galerie, Prague; Zacheta, Warsaw.
British Art 1980, Liljevalens Konsthall, Stockholm, Sarah Hilden Art Museum, Tampere, Finland.
Beelden en Banieren, Fort Asperen, Netherlands, 1987.

FRENCH LANGUAGE AND LITERATURE

BAKER, FELICITY, 1986. The radical poetry of *Don Giovanni. Cross-References*, 123-135. David Kelley and Isabelle Llasera (editors). (Leeds: Society for French Studies).

BAKER, FELICITY, 1986. Moral death and fictional self-portrayal. *Romance Studies*, Spring, 35-51.

BAKER, FELICITY, 1987. English translation of Lévi-Strauss, Claude, *Introduction à l'oeuvre de Marcel Mauss. Introduction to the work of Marcel Mauss*, (London: Routledge and Kegan Paul). xi + 89 pp.

BARBER, W. H. 1986. On editing Voltaire. *Studies on Voltaire and the Eighteenth Century*, vol. 242, 491-502.

BARBER, W. H. 1986. Preface to Voltaire. In *Complete Works, vol. 50* (works of 1760), xix-xxi. J. Balcou, C. Duckworth, W. D. Howarth (editors). (Oxford, Voltaire Foundation).

BARBER, W. H. 1984. Review of *Man and nature. L'Homme et la nature*. R. L. Emerson, W. Kinsley, W. Moser (editors). (Proc. of the Canadian Society for Eighteenth-Century Studies, 2). Montreal, Canadian Society for Eighteenth-Century Studies.

BARBER, W. H. 1987. Review of O. M. Brack Jr. *Studies in Eighteenth-Century Culture*. Vol. 14. American Society for Eighteenth-Century Studies. (Madison and London, University of Wisconsin Press). In *Modern Language Review*, vol. 82, 427-429.

CALDER, ANDREW, 1987. Molière, Plautus, Terence and Renaissance Theories of Comedy, *New Comparison*, No. 3 'Comedy', Summer, 19-32.

CALDER, RUTH, 1986. Montaigne as Satirist, *The Sixteenth Century Journal*, vol. XVII, No. 2, 225-235.

FERGUSSON, KIRSTY, 1986/7. 'Le rire et l'absolu dans l'oeuvre de Michel Tournier', *Sud*, vol. 61, 76-89.

HORROCKS, GILLIAN, 1986. A semiotic study of *Carmen. Nottingham French Studies*, vol. 25, no. 2, 60-72.

HORROCKS, GILLIAN, Blondel, M., Brick, N. and McBride, N. 1987. INTERCALL - A presentation and discussion of new, user-developed software for advanced language learning. *Bull. of the Society for French Language Studies*, Spring 1987.

LAVERS, ANNETTE, 1986. Review of Elizabeth Wright *Psychoanalytical Criticism: Theory in Practice. Poetics Today*, vol. 7, no. 1, 170-172.

WOLEDGE, B. 1987. Un o ffynonellau cymreig Chrétien de Troyes: Laudune de Lauduc, merch Laudunet. (Translated into Welsh by A. O. H. Jarman). *LLên Cymru*, vol. 15, 18-22.

WORTON, M. J. 1986. Intertextuality: to inter textuality or to resurrect it? In *Crossreferences*, 14-23. Isabelle Llasera and David Kelley (editors). (Leeds: Society for French Studies).

GEOGRAPHY

ADAMS, J. G. U. 1986. The achievements of road safety regulation. In *Proc.: Conference on Traffic Law and the Motorist*. (London: Centre for Transport Planning). 41-46.

ADAMS, J. G. U. 1986. Seat belts, drink and statistics. *Financial Times*, 20 December, 1986.

ADAMS, J. G. U. 1986. A view of the strategic context. Astride the A1 Corridor. In *Rep. of a Conference on Traffic Problems in the Holloway Road and the Al Corridor*, (London: PNL Press). 11-22.

ADAMS, J. G. U. 1986. How pedestrians can make roads safer. *Town and Country Planning*, April, 118-119.

ADAMS, J. G. U. 1986. Too many eggs in one chunnel basket. *Town and Country Planning*, September, 247-248.

ADAMS, J. G. U. 1986. Subsidy versus subsidy: wasting resources, *Town and Country Planning*, October, 266.

ADAMS, J. G. U. 1987. Safety through self interest, In *Proc. the Fleet Management Conference of Commercial Motor*, February, 19-22.

ADAMS, J. G. U. 1987. The assessment studies and SACTRA, In *Proc. London Assessment Studies Conference* (London: Centre for Transport Planning). 38-43.

ADAMS, J. G. U. 1987. Smeed's Law: some further thoughts, *Traffic Engineering and Control*, February, 70-73.

AGNEW, C. T. 1987. Sahel drought: evident or apparent? *Bloomsbury Geographer*, vol. 14, 12-22.

BARNSLEY, M. J. 1986. Derivation of a globally applicable Index of Off-Nadir Effects (IONE). *Proc. NERC Symp. 1985 Airborne Remote Sensing Campaign*. (Abbots Ripton, Cambridgeshire: NERC) E1-E10.

BARNSLEY, M. J. (with Reid, I. and Frostick, L. F.) 1986. Use of Airborne Thematic Mapper Imagery in detecting the warping of sediment by vegetation in estuarine environments. *Ibid.*, C29-C38.

BATTARBEE, R. W. (with Wells, D. E. and Gee, A. S.) 1986. Sensitive surface waters: a UK perspective. *Water Air and Soil Pollution*, vol. 31, 631-645.

BATTARBEE, R. W. (with Charles, D. F.) 1986. Diatom-based pH reconstruction studies of acid lakes in Europe and North America: a synthesis. *Ibid.*, 347-354.

BATTARBEE, R. W. (with Appleby, P. G., Nolan, P. J., Gifford, D. W., Godfrey, M. J., Oldfield, F., and Anderson, N. J.) 1986. 210Pb dating by low background gamma counting, *Hydrobiologia*, vol. 143, 21-27.

BURGESS, J. 1986. Crossing boundaries: a group analytic perspective in geographical research. *Group Analysis*, vol. 19, 235-44.

CARTER, F. W. 1986. City Profile - Tirana. *Cities*, vol. 3, 270-281.

CARTER, F. W. 1987. Bulgaria. In *Planning in Eastern Europe*, 67-101. A. H. Dawson (editor). (London & Sydney: Croom Helm).

CARTER, F. W. 1987. Czechoslovakia. *Ibid.*, 103-138.

CLOUT, H. D. 1986. *Regional Variations in the European Community*. (Cambridge: Cambridge University Press) 128 pp.

CLOUT, H. D. 1985. Agricultural geography of Gers in the nineteenth century. *Bulletin de la Société Royale de Géographie d'Anvers*, vol. 45, 17-32.

CLOUT, H. D. 1986. Population changes in rural Britain. *Espace, Populations, Sociétés*, vol. 3, 19-32.

CLOUT, H. D. 1986. La rehabilitiation de la zone portuaire de Londres. In *Restructuration des Espaces Portuaires en Milieu Urbain*, 61-69. J. P. Lacaze (editor). (Rouen: Université Permanente d'Environnement).

CLOUT, H. D. (with Herbert D.) 1987. The human geography of Israel. *Bulletin: The Academic Study Group*, vol. 11, 1-3.

COOKE, R. U. 1987. The use of geomorphology. In *International Geomorphology*, 63-82. V. Gardner (editor). (Chichester: Wiley).

COOKE, R. U., WARREN, A. (with Jones, D. K. C.) 1986. Geomorphological investigation, for engineering purposes, of blowing sand and dust hazard. *Quat. J. Engineering Geology*, vol. 19, 251-70.

COOKE, R. U. 1986. Hot drylands. In *A Handbook of Engineering Geomorphology*, 109-24. P. G. Fookes and P. R. Vaughan (editors). (Glasgow: Surrey University Press).

COOKE, R. U. (with Brunsden, D.) (compilers) 1987. *The Wahiba Sands*. (London: Royal Geographical Society) 75 pp.

COOKE, R. U. (with Doornkamp, J. C., Brunsden, D., Jones, D. K. C., and Griffiths, J. S.) 1986. Environmental geology mapping - an international review. In *Proc. Conf. on Planning and Engineering Geology*, Plymouth, 8-12 Sept. 1986, 225-35.

DENNIS, R. J. 1987. People and housing in industrial society. In *Historical Geography: progress and prospect*, 184-216. M. Pacione (editor). (London: Croom Helm).

DENNIS, R. J. 1987. Faith in the city? *J. of Historical Geography*, vol. 13, 310-16.

FLOWER, R. J. (with Rippey, B. and Tervet, D. J.) 1986. Thirty-four Galloway lakes: bathymetry, water quality, and surface sediment diatom assemblages. *Working Paper*, no. 14, (Palaeoecology Research Unit, Dept. of Geography, University College, London). 25 pp.

FLOWER, R. J. (with Nicholson, A.) 1986. Bathymetries, water quality and diatoms of lochs on the island of South Uist, the Outer Hebrides, Scotland. *Working Paper* no. 15, (Palaeoecology Research Unit, Dept. of Geography, University College, London). 30 pp.

FLOWER, R. J. 1986. Two forms of *Tabellaria binalis* (Ehr.) Grun. in two acid lakes in Galloway, Scotland. In *Diatoms and Lake Acidity*, 45-54. J. P. Smol, R. W. Battarbee, R. B. Davis and J. Meriläinen, (editors). (The Hague: W. Junk).

FLOWER, R. J. (with Jones, V.) 1986. Spatial and temporal variability in periphytic diatom communities: palaeoecological significance. *Ibid.*, 87-96.

FLOWER, R. J. 1986. The relationship between surface sediment diatom assemblages and pH in 33 Galloway lakes: some regression models for reconstructing pH and their application to sediment cores. *Hydrobiologia*, vol. 143, 93-103.

FLOWER, R. J. 1986. An evaluation of some early diatom material and chemical data from Lough Neagh, Northern Ireland. *Diatom Research*, vol. 1, 19-26.

GILBERT, A. G. 1987. Urban unrest in Latin America. In *Third World Affairs 1987*, 405-413. R. Gauhar (editor). (London: Third World Foundation for Social and Economic Studies).

GILBERT A. G. 1987. Research policy and review 15. From Little Englanders into Big Englanders: thoughts on the relevance of relevant research. *Environment and Planning A*, vol. 19, 143-151.

GILBERT, A. G. 1986. Latin America, the world recession, and the new international division of labour. *Tijdschrift voor Economische en Sociale Geografie*, vol. 77, 368-377.

GILBERT, A. G. 1987. Urban growth, employment and housing. In *Latin American Development Geographical Perspectives*, 169-198. D. Preston (editor). (Harlow: Longman).

GILBERT, A. G. 1987. Latin America's urban poor: shanty dwellers or renters of rooms? *Cities*, vol. 4, 43-51.

GILBERT, A. G. (with Ward, P. M.) 1987. *Asentamientos populares vs poder del estados. Tres casos latinoamericanos: Ciudad de México, Bogotá y Valencia*. (Mexico City: Gustavo Gili).

GILBERT, A. G. (with Van der Linden, J.) 1978. The limits of a Marxist theoretical framework for explaining state self-help housing: a comment. *Development and Change*, vol. 18, 129-136.

HARRISON, CAROLYN M. (with Gregory, K. J. and Walling, D. E.) (editors). 1986. Human activity and species response. In *Human Activity and Environmental Processes*, 381-402. (Chichester: Wiley).

HARRISON, CAROLYN M., BURGESS, J. and LIMB, M. J. 1986. Recreation 2000: views of the country from the city. *Landscape Research*, vol. 11, 19-24.

HOLLIS, G. E., (Editor and Project Director). 1986. *The modelling and management of the internationally important wetland at Garaet El Ichkeul, Tunisia*. (Slimbridge, Glos.: International Waterfowl Research Bureau Special Publication No. 4) 121 pp.

HOLLIS, G. E. (with Hollands, G. G. and Larson, J. S.) 1987. Science base for freshwater wetland mitigation in the glaciated northeastern United States: Hydrology. In *Mitigating Freshwater Wetland Alterations in the Glaciated Northeastern United States: An Assessment of the Science Base*, 131-143. J. S. Larson and C. Neil (editors). (Amherst, Mass.: Fund for New England & University of Massachusetts).

HOLLIS, G. E. (with Smart, M. and Skinner, J.) (Scientific Advisers). 7 December 1986. BBC, The Natural World 'Ichkeul - Between the Desert and the Deep Blue Sea'.

HOLLIS, G. E. 12 and 19 January 1987. BBC French Language Service for Africa, Horizon 2000.

JACKSON, P. A. 1987. Social geography: politics and place. *Progress in Human Geography*, vol. 11, 286-292.

JACKSON, P. A. (with D. E. Cosgrove), 1987. New directions in cultural geography. *Area*, vol. 19, 95-101.

JACKSON, P. A. (with others) 1986. Global capital and local knowledge: books in 1985. *Environment and Planning D: Society and Space*, vol. 4, 477-88.

KREISER, A. (with others) 1986. Palaeoecological evidence for the acidification of Welsh Lakes. II: Llyn Berwyn, Dyfed. Report to the DoE under grant PECD/7/7/139. *Working Paper* no. 18. (Palaeoecology Research Unit, Dept. of Geography, University College London). 71 pp.

LITTLE, JO K. 1986. Feminist perspectives in rural geography: an introduction. *J. of Rural Studies*, vol. 2, 1-8.

LONGSTAFFE-GOWAN, R. T. 1987. James Cochran: florist and plant contractor to Regency London. *Garden History*, vol. 15, 55-63.

LOWENTHAL, D. (with Penning-Rowsell, E. C.) (editors). 1986. *Landscape Meanings and Values*. (London: Allen and Unwin). 137 pp.

LOWENTHAL, D. 1986. Heritage - and its interpreters. *Heritage Australia*, vol. 5, 42-45.

LOWENTHAL, D. 1986. Review of Barbara Maria Stafford *Voyage into substance: art, science, and the illustrated travel account, 1760-1840. Isis*, vol. 77, 324-327.

LOWENTHAL, D. 1987. Bias: making the most of an incurable malady. In *Bias in Museums*, 32-35. A Curruthers (editor). (London, Museum Professionals Group, Transactions No. 22).

LOWENTHAL, D. 1987. Some West Indian experience. Review of Colin Brock (editor). *The Caribbean in Europe: aspects of the West Indian experience in Britain, France and the Netherlands. New Community*, vol. 14, 516-518.

MANNERS, G. (with Morris, D.) 1986. *Office Policy in Britain: a Review.* (Norwich: Geobooks), 158 pp.

MANNERS, G. 1987. Energy Prices: Exploring the Options. *RTZ Review*, No. 1, March, 22-23.

MEAD, W. R. 1986. The granaries of Finland. *Fennia*, vol. 164, 192-302.

MEAD, W. R. 1986. Norden, destiny and fortunes. In *Norden, the passion for equality*, 16-43. Stephen R. Graubard (editor). (Oslo: Norwegian University Press).

MEAD, W. R. 1986. The Nordic countries. In *Il Nord e il Sud d'el Europa*, 1-5, 36-43, 68-71. 96-101, 134-37. Eugenio Turi (editor). (Novara: Banco Popolare Di Novara).

MEAD, W. R. 1987. Regional geography: re-assessment and re-affirmation. *Ymer*, vol. 107, 95-101.

MEAD, W. R. 1987. The geographical regions of Norden. In *Norden, man and environment*, 499-509. Uuno Varjo and Wolf Tietze (editors). (Berlin: Gebr. Borntraeger).

MUNTON, R. J. C., WHATMORE, S., LITTLE, J. K. (with Marsden, T. K.) 1986. Towards a political economy of capitalist agriculture: a British perspective. *International J. of Urban and Regional Research*, vol. 10, 498-521.

MUNTON, R. J. C., WHATMORE, S., LITTLE, J. K. (with Marsden, T. K.) 1986. The restructuring process and economic centrality in capitalist agriculture. *J. of Rural Studies*, vol. 2, 271-280.

O'CONNOR, A. M. 1987. The emerging metropolis in tropical Africa. In *The Metropolis in Transition*, 17-32, E. Y. Galantay (editor). (New York: Paragon House).

O'CONNOR, A. M. 1987. Studying problems of land use in East Africa. In *Land, Water and Mineral Resources in Science Education*, 27-37, N. J. Graves (editor). (Oxford: Pergamon Press).

O'CONNOR, A. M. 1987. Ethiopia, 214-215; Kenya, 354-356; Tanzania, 628-629; Uganda, 658-659. In *Guide to Places of the World*, (London: Reader's Digest).

PATRICK, S. T. 1987. Palaeoecological evaluation of the recent acidification of Welsh lakes. V: The significance of land use and land management change. *Working Paper* no. 21. (Palaeoecology Research Unit, Dept. of Geography, University College London.) 47 pp.

PATRICK, S. T. (with Stevenson, A. C.) 1986. Palaeoecological evaluation of the acidification of Welsh lakes. III: Llynau Conwy and Gamallt, Gwynedd. Report to the DoE under grant PECD/7/7/139. *Working Paper* no. 19. (Palaeoecology Research Unit, Dept. of Geography, University College London.) 34 pp.

PATRICK, S. T. (with others) 1987. Palaeoecological evaluation of the acidification of Welsh lakes. VII: Llyn y Bi, Gwynedd. *Working Paper* no. 23. (Palaeoecology Research Unit, Dept. of Geography, University College London.) 63 pp.

PATRICK, S. T. (with others) 1987. Palaeoecological evaluation of the acidification of Welsh lakes. VIII: Eiddwe Bach, Gwynedd. *Working Paper* no. 24. (Palaeoecology Research Unit, Dept. of Geography, University College London.) 73 pp.

PATRICK, S. T. (with others) 1987. Palaeoecological evaluation of the acidification of Welsh lakes. IX: Llyn Llagi, Gwynedd. *Working Paper* no. 25. (Palaeoecology Research Unit, Dept. of Geography, University College London.) 75 pp.

PRINCE, H. C. 1986. Preservation. In *The Dictionary of Human Geography*, 366-367. R. J. Johnston, Derek Gregory, D. M. Smith (editors). (Oxford: Blackwell).

PRINCE, H. C. 1986. Woods, Richard (1716-93). In *The Oxford Companion to Gardens*, 613. Patrick Goode and Michael Lancaster (editors). (Oxford: Oxford University Press).

SALT, J. (with Daniels, P. W. and Werrity, A.) 1987. Research foci in British geography. *Area*, vol. 19, 51-59.

SALT, J. 1986. International migration and the United Kingdom. *Rep. of the U.K. Correspondent to the SOPEMI Committee* (Paris: OECD) 51 pp.

SALT, J. 1987. Introduction. *Atlas of the World*. (London: Salamander).

STEVENSON, A. C. (with others) 1987. Palaeoecological evaluation of the acidification of Welsh lakes. IV: Llyn Gynon, Dyfed. Report to the DoE under grant PECD 7/7/139. *Working Paper* no. 20. (Palaeoecology Research Unit, Dept. of Geography, University College London.) 72 pp.

STEVENSON, A. C. (with others) 1987. Palaeoecological evaluation of the acidification of Welsh lakes. VI: Lyn Dulyn, Gwynedd. *Working Paper* no. 22. (Palaeoecology Research Unit, Dept. of Geography, University College London.) 75 pp.

VARLEY, ANN, 1985. La zona urbana ejidal y la urbanizaciòn de la ciudad de Mèxico. *A: Revista de Ciencias Sociales y Humanidades*, vol. 6 (15), 71-95.

VARLEY, ANN, 1986. Agrarian law and urbanisation in Mexico City. In *Cambio social y econòmico en Amèrica Latina: perspectivas geogràficas*, 365-82. C. Clarke, S. Levi de Lòpez, G. Gonzàlez R. (editors). (Toluca: Universidad Autònoma del Estade de Mèxico).

VARLEY, ANN, 1987. Discovering value problems in fieldwork. *Bloomsbury Geographer*, vol. 14, 6-11.

VARLEY, ANN, 1987. The relationship between tenure legalization and housing improvements: evidence from Mexico City. *Development and Change*, vol. 18 (3), 463-81.

VILES, H. A. (with Spencer, T.) 1986. 'Phytokarst', blue-green algae and limestone weathering. In *New Directions in Karst*. 115-140. K. Paterson and M. M. Sweeting (editors). (Norwich: GeoBooks).

VILES, H. A. 1986. Coastal landforms. *Progress in Physical Geography*, vol. 10, 429-436.

VILES, H. A. 1987. Blue-green algae and terrestrial limestone weathering on Aldabra Atoll: an SEM and light microscope study. *Earth Surface Processes and Landforms*, vol. 12, 319-330.

VITA-FINZI, C. (with Higgs, E. S.) 1986. Site catchment analysis. In *Excavations at Sitagroi*, 144-6. C. Renfrew, M. Gimbutas and E. Carter (editors). (Los Angeles: University of California).

VITA-FINZI, C. (with Ozer, A.) (editors). 1986. Dating Mediterranean shorelines. *Zeit. für Geomorph.*, Spp. Bd. 61, 212 pp.

WALLMAN, SANDRA, 1985. Success and failure in the inner city, *Town and Country Planning*, vol. 54, no. 12.

WALLMAN, SANDRA, 1985. Anthropology's rules of thumb. In *Advocacy and Anthropology*. Robert Paine (editor). (I.S.E.R. St John, Newfoundland: Memorial University, Newfoundland).

WALLMAN, SANDRA, 1986. Ethnicity and the boundary process in context. In *Theories of Race and Ethnic Relations*, 226-245. John Rex and David Mason (editors). (Cambridge: Cambridge University Press).

WALLMAN, SANDRA, 1986. The boundaries of household. In *Symbolising Boundaries: identity and diversity in British cultures*, 50-70. A. P. Cohen, (editor). (Manchester: Manchester University Press).

WALLMAN, SANDRA, 1986. Mimeo. *Social Impact of Canary Wharf*. Preliminary first report for a proposed study commissioned by London Docklands Development Corporation.

WARREN, A. (with Goudie, A. S., Jones, D. K. C., and Cooke, R. U.), 1987. The character and possible origins of the aeolian sediments of the Wahiba Sand Sea, Oman. *Geographical J.*, vol. 153, 231-256.

WHATMORE, SARAH, 1986. Landownership relations and the development of modern British agriculture. In Agriculture: *People and Policies*, 105-125. G. Fox, P. Lowe and M. Wintor (editors). (London: Allen and Unwin).

WHATMORE, SARAH, MUNTON, R. J. C. and LITTLE, J. K. (with Marsden, T. K.) 1987. Towards a typology of farm businesses in contemporary British agriculture. *Sociologia Ruralis*, vol. xxvii, 21-37.

WHATMORE, SARAH, MUNTON, R. J. C. and LITTLE, J. K. (with Marsden, T. K.) 1986. Internal and external relations in the transformation of the farm family. *Sociologia Ruralis*, vol. xxvi, 396-398.

WOOD, P. A. (with Damesick, P.) (editors). 1987. *Regional Problems, Problem Regions and Public Policy in the United Kingdom*. (Oxford: Oxford University Press). 275 pp.

WOOD, P. A. 1987. The South East. *Ibid.*, 64-94.

WOOD, P. A. 1987. (with Damesick, P.). Public policy for regional development: restoration or reformation? *Ibid.*, 260-267.

WOOD, P. A. 1987. Behavioural approaches to industrial location studies. In *Industrial Change in the United Kingdom*, 38-55. W. F. Lever (editor). (London: Longman).

WOOD, P. A. (with Marshall, J. N., Daniels, P., and McKinnon, A.) 1987. Producer services and uneven development. *Area*, vol. 19, 35-41:

WOOD, P. A. 1987. Producer services and economic change: some Canadian evidence. In *Technical Change and Industrial Policy*, 51-77: K. Chapman and G. Humphrys (editors). (Oxford: Blackwell).

WOOLF, PENNY, 1987. *Le caprice du prince* - the problem of the Bastille Opera. *Planning Perspectives*, vol. 2, 53-69.

GERMAN

FULBROOK, M. J. A. 1987. Co-option and Commitment: aspects of relations between Church and State in the GDR. *Social History*, vol. 12, no. 1, 73-91.

FULBROOK, M. J. A. 1987. Solutions to German History? East and West Germany compared. *Parliamentary Affairs*, vol. 40, no. 1, 113-29.

FULBROOK, M. J. A. 1987. The State and the transformation of political legitimacy in East and West Germany since 1945. *Comparative Studies in Society and History*, vol. 29, no. 2, 211-44.

FULBROOK, M. J. A. (with Stephenson, J.) (editors). 1987. *German History*, vol. 4, iv + 113 pp.

STEVENS, A. K. 1987. Dichtung und Geschichte: Bemerkungen zur Lyrik Heinz Czechowskis. In *Ein Moment des erfahrenen Lebens: Zur Lyrik der DDR*, 36-50, John L. Flood (editor). (Amsterdam: Rodopi).

STILLMARK, A. (with Castein, H.) (editors). 1986. *Deutsche Romantik und das 20. Jahrhundert. Londoner Symposium 1985*, (Stuttgart: Verlag Hans-Dieter Heinz) 171 pp.

STILLMARK, A. 1986. The Significance of Novalis for Hofmannsthal. In *Deutsche Romantik und das 20. Jahrhundert*, 61-83. H. Castein and A. Stillmark (editors). (Stuttgart: Verlag Hans-Dieter Heinz).

STILLMARK, A. 1987. Kleist's *Der zerbrochene Krug* and Gogol's *The Inspector General*. A Comparative View. In *New Comparison*, no. 3, 45-51.

SWALES, M. W. 1987. *German Poetry: An Anthology from Klopstock to Enzensberger.* (Cambridge: Cambridge University Press). 208 pp.

SWALES, M. W. 1987. Narrative Accommodations: The Legacy of the Romantic *Künstlernovelle*. In *Echoes and Influences of German Romanticism (Essays in Honour of Hans Eichner)*. 183-194. Michael S. Batts, Anthony W. Riley and Heinz Wetzel (editors). (New York and Berne: Peter Lang).

SWALES, M. W. 1987. Barker Fairley 1887-1986. In *German Life and Letters*, vol. 40, 261-4.

GREEK

COCKLE, W. E. H. 1987. Euripides, *Hypsipyle - Text and Annotation based on a Re-examination of the Papyri*. (Rome: Edizioni dell'Ateneo). 247 pp. + pl. xiii.

COLES, R. A. 1985. Julius Athenodorus, *praeses Thebaidos. Bull. Center of Papyrological Studies* (Cairo, Ain Shams University), vol. 1, 51-55.

COLES, R. A. 1985. Caecilius Consultius, *praefectus Aegypti. Bull. American Society of Papyrologists*, vol. 22, 25-27.

COLES, R. A. (with SIJPESTEIJN, P. J.) 1986. Sarapion *al*. Phanias, *strategus Arabiae. Chronique d'Égypte*, vol. 61, 108-110.

GRIFFITHS, A. H. 1986. Oedipus' proclamation to the Thebans: a case of double dislocation? In *Studies in Honour of T. B. L. Webster*, 130-133. J. H. Betts, J. T. Hooker and J. R. Green (editors). (Bristol: Bristol Classical Press).

GRIFFITHS, A. H. 1985. A ram called Patroklos. *Bull. Institute of Classical Studies*, vol. 32, 49-50.

GRIFFITHS, A. H. 1986. What leaf-fringed legend . . . ? A cup by the Sotades Painter in London. *J. of Hellenic Studies*, vol. 106, 57-70.

HOOKER, J. T. 1987. Titles and functions in the Pylian state. In *Studies in Mycenaean and Classical Greek presented to John Chadwick* (= *Minos*, vols. 20-22), 257-267. J. T. Killen, J. L. Melena and J. P. Olivier (editors). (Salamanca: University of Salamanca).

HOOKER, J. T. 1985. A reading of the seventh *Olympian. Bull. Institute of Classical Studies*, vol. 32, 63-70.

HOOKER, J. T. 1986. Review of A. J. Podlecki, *The early Greek poets and their times. Classical Review*, vol. 36, 302-303.

KELLS, J. H. 1986. Sophocles' *Electra* revisited. In *Studies in Honour of T. B. L. Webster*, vol. 1, 153-160. J. H. Betts, J. T. Hooker and J. R. Green (editors). (Bristol: Bristol Classical Press).

MAEHLER, H. G. T. 1986. Ein Fragment eines hellenistischen Epos. *Museum Philologum Londiniense*, vol. 7, 109-118.

MAEHLER, H. G. T. 1986. Literarische Texte unter Ausschluss der christlichen: Lyrik. *Archiv für Papyrusforschung*, vol. 32, 79-85.

MAEHLER, H. G. T. 1987. Ein neue ptolemäische Enteuxis. *Ibid.*, vol. 33, 23-31.

SHARPLES, R. W. 1986. Species, Form and Inheritance: Aristotle and after. In *Aristotle on Nature and living things: philosophical studies presented to David M. Balme*, 117-128. A. Gotthelf (editor). (Pittsburg: Mathesis).

SHARPLES, R. W. 1985. Ambiguity and opposition; Alexander of Aphrodisias, *Ethical Problem* 11. *Bull. Institute of Classical Studies*, vol. 32, 109-116.

SHARPLES, R. W. 1986. Soft determinism and freedom in early Stoicism. *Phronesis*, vol. 31, 266-279.

SHARPLES, R. W. 1986. Review of W. M. Zeitler, *Entscheidungsfreiheit bei Platon* (*Zetemata* 78). *J. of Hellenic Studies*, vol. 106, 215.

SHARPLES, R. W. 1986. Review of T. S. Lee, *Die griechische Tradition der aristotelischen Syllogistik in der Spätantike. J. of Hellenic Studies*, vol. 106, 231.

(the late) TURNER, Sir E. G. 1987. *Greek Manuscripts of the Ancient World* (2nd edition, revised by Parsons, P. J.) (London: *Bull. Institute of Classical Studies Supplement 46)*. 174 pp. + pl. 92.

HEBREW AND JEWISH STUDIES

FRANKEL, J. (editor) (with Medding, P. and Mendelsohn, E.) 1986. *Studies in Contemporary Jewry*, no. 2, 429 pp. (Indiana University Press).

FRANKEL, J. 1986. Introduction, In *Essays in Jewish Social and Economic History*, vii-xx. (Chicago University Press).

FRANKEL, J. 1986. The 'Yizkor' Book of 1911 - A Note on National Myths in the Second Aliya. In *Religion, Ideology and Nationalism in Europe and America*. 355-384. (Jerusalem: The Historical Society of Israel).

FRANKEL, J. 1986. The Crisis as a Factor in Modern Jewish History: 1881 and 1840. In *Living with Antisemitism: Modern Jewish Responses*. 43-60. J. Reinharz (editor). (University Press of New England).

GELLER, M. J. 1987. The Lugal of Nariat Ebla and the Sumerian King List. In *Eblaitica. Essays on the Ebla Archives and Eblaite Language*. 141-145. C. H. Gordon *et al* (editor). (Eisenbraun: Winona Lake).

GELLER, M. J. 1986. Review of J. Black *Sumerian Grammar in Babylonian Theory. BSOAS*, vol. 49, no. 2, 563-65 (with plate).

WEITZMAN, M. P. 1987. Statistical Patterns in Hebrew and Arabic Roots. *J. of the Royal Asiatic Society*. no. 1, 15-22.

HISTORY

ABEL, C. G. (with Torrents, N.) (editors) 1986. *José Martí - Revolutionary Democrat*. (London: Athlone Press and North Carolina: Duke University Press). 238 pp.

ABEL, C. G. 1986. Martí, Latin America and Spain. *Ibid.*, 124-152.

ABEL, C. G. 1986. Concluding perspectives. *Ibid.*, 192-200.

ABEL, C. G. 1986. Martí, América Latina y España. *Revista de la Universidad Nacional*, 2nda época, vol. 1, no. 6, 13-30.

ABEL, C. G. 1986. Riot and restoration. *TLS*, 15 August, 883.

BETHELL, L. M. (editor) 1987. *Colonial Spanish America*. (Cambridge: Cambridge University Press). 455 pp.

BETHELL, L. M. (editor) 1987. *Colonial Brazil*. (Cambridge: Cambridge University Press.) 398 pp.

BETHELL, L. M. (editor) 1987. *The Independence of Latin America*. (Cambridge: Cambridge University Press.) 261 pp.

BETHELL, L. M. (editor) 1987. *Spanish America after Independence c. 1820-1870*. (Cambridge: Cambridge University Press.) 424 pp.

BURNS, J. H. 1987. *Absolutism: the History of an Idea*. (The Creighton Trust Lecture, 1986). (London: University of Londson). 30 pp.

BURNS, J. H. 1986. Clio as governess: Richmal Mangnall (1769-1820) and her *Historical Questions*. *History Today*, vol. 36, 10-15.

CHRISTIE, I. R. 1986. British response to American reactions to the Townshend Acts, 1768-1770. In *Resistance, Politics and the American Struggle, 1765-1775*, 193-214. Walter H. Conser. Jr., Ronald M. McCarthy, David J. Toscano and Gene Sharp (editors). (Boulder, Colorado: Lynne Rienner Publishers).

CHRISTIE, I. R. 1986. The British Ministers, Massachusetts, and the Continental Congress, 1774-1775. *Ibid.*, 325-357.

CHRISTIE, I. R. 1987. Samuel Bentham's Library in Russia. *The Slavonic and East European Review*, vol. 65, no. 1, 26-37.

CHRISTIE, I. R. 1987. Party in politics in the age of Lord North's Administration. *Parliamentary History*, vol. 6, pt. 1, 47-68.

CHRISTIE, I. R. 1986. Review of B. W. Hill *British Parliamentary Parties, 1742-1832: From the Fall of Walpole to the First Reform Act*. *Parliamentary History*, vol. V, 161-3.

CHRISTIE, I. R. 1987. Review of N. A. M. Rodger *The Wooden World. An Anatomy of the Georgian Navy*. *History Today*, vol. 37, February, 59-61.

CLARKE, HELEN, 1986. *The Archaeology of Medieval England* (2nd edition, paperback). (Oxford: Basil Blackwell). 224 pp.

CLARKE, HELEN (translator). 1986. *Dating in the Bronze Age with special reference to Scandinavia*. (Stockholm: Royal Swedish Academy of History and Antiquities). 148 pp.

CLARKE, HELEN, 1986. Archäologie (medieval archaeology in England). *Lexikon des Mittelalters*, 1989-1991. (Munich: Artemis and Winkler).

CLARKE, HELEN, 1986. The Truro conference. *Medieval Archaeology*, vol. 30, 113.

CLARKE, HELEN, 1986. Review of J. M. Steane *The Archaeology of Medieval England and Wales*. *The Antiquaries J.*, vol. 66:1, 187-188.

CORNELL, T. J. 1986. The formation of the historical tradition of early Rome. In *Past Perspectives*, 67-86. I. Moxon, J. D. Smart and A. J. Woodman (editors). (Cambridge: Cambridge University Press).

CORNELL, T. J. 1986. The value of the literary tradition concerning early Rome. In *Social Struggles in Early Rome: new perspectives on the Conflict of the Orders*, 52-76. K. Raaflaub (editor). (Berkeley: University of California Press).

CORNELL, T. J. 1986. Rome and Latium Vetus, 1980-1985. *Archaeological Reports*, vol. 32, 123-133.

CORNELL, T. J. 1986. 'The *Annals* of Quintus Ennius', Review discussion of O. Skutsch, *The Annals of Q. Ennius*. *J. of Roman Studies*, vol. 76, 244-260.

CORNELL, T. J. 1986. Review of J. Poucet *Les origines de Rome*. *TLS*, 1 August, 848.

CRAWFORD, M. H. (editor and contributor). 1986. *L'impero romano e le strutture economiche e sociali delle province*. (Como).

CRAWFORD, M. H. (editor, with Burnett, A. M. and contributor). 1987. *The Coinage of the Roman World in the Late Republic*. (Oxford).

CRAWFORD, M. H. 1986. Prospezioni a Fregellae. *Arch. Laz.*, 8.

CRAWFORD, M. H. 1986. Excavations at Fregellae III, *PBSR*, 40.

CRAWFORD, M. H. 1986. Translation and Appendices in J. Gonzalez, The Lex Irnitana, *JRS*, 147.

DAUNTON, M. J. 1986. Labour and Technology in South Wales, 1870-1914. In *Modern South Wales: Essays in Economic History*, 140-152. C. Baber and L. J. Williams (editors). (Cardiff: University of Wales Press).

DAUNTON, M. J. 1987. Australian Merchants in the City of London, 1840-1890. In *The City and Empire II, Collected Seminar Papers No. 36*, 134-142. (London: Institute of Commonwealth Studies).

DAVIES, WENDY, (with Fouracre, P.) (editors). 1986. *The Settlement of Disputes in Early Medieval Europe*. (Cambridge: Cambridge University Press). 316 pp.

DAVIES, WENDY, 1986. People and places in dispute in ninth-century Brittany. *Ibid.*, 65-84.

DAVIES, WENDY, (with Astill, G.) 1986. Prospections archéologiques dans l'est de la Bretagne: mars - avril 1986. *Dossiers du Centre Régional Archéologique d'Alet*, vol. 14, 111-120.

FRENCH, D. W. 1986. *British Strategy and War Aims, 1914-1916*. (London: Allen and Unwin). xiv + 274 pp.

FRENCH, D. W. 1987. Ramsay MacDonald. In *The Makers of English History*, 247-252. Norman Stone (editor). (London: Weidenfeld and Nicolson).

FRENCH, D. W. 1987. The Dardanelles, Mecca and Kut. Race as a factor in British imperial strategy 1914-1916. *War and Society*, vol. 5, no. 1, 45-61.

GRAHAM-CAMPBELL, J. A. (with Brooks, N. P.) 1986. Reflections on the Viking-age silver hoard from Croydon, Surrey. In *Anglo-Saxon Monetary History - essays in memory of R. H. M. Dolley*, 91-110. M. A. S. Blackburn (editor). (Leicester: Leicester University Press).

GRAHAM-CAMPBELL, J. A. 1987. From Scandinavia to the Irish Sea: Viking art reviewed. In *Ireland and Insular Art, A.D. 500-1200*, 144-52. M. Ryan (editor), Cork, 31 October - 3 November 1985. (Dublin: Royal Irish Academy).

GRAHAM-CAMPBELL, J. A. 1986. The Scandinavian Impact: pagans and Christians. *History Today*, vol. 36, 24-28.

GRAHAM-CAMPBELL, J. A. 1987. A lost Pictish treasure (and two Viking-age gold arm-rings) from the Broch of Burgar, Orkney. *Proc. of the Society of Antiquaries of Scotland*, vol. 115 (1985), 241-261.

HALE, J. R. 1986. Soldiers in the religious art of the Renaissance. *Bull. of the John Rylands University Library of Manchester*, vol. 69, no. 1, 166-194.

HARTE, N. B. 1986. *The University of London, 1836-1986: An Illustrated History*. (London: Athlone Press.) 303 pp.

HARTE, N. B. (editor.) 1986. *London Journal*, from vol. 12, no. 2.

HOPPIT, J. 1986. The use and abuse of credit in eighteenth-century England. In *Business Life and Public Policy: Essays in Honour of D. C. Coleman*, 64-78. N. McKendrick and R. B. Outhwaite (editors). (Cambridge: Cambridge University Press).

HOPPIT, J. 1987. Understanding the Industrial Revolution. *Historical J.*, vol. 30, 211-224.

HOPPIT, J. 1987. Patchy Growth. Review of C. H. Lee *The British Economy since 1700: A Macroeconomic Perspective*. *THES*, 6 March, 748.

HOPPIT, J. 1987. Cotton King. Review of Mary B. Rose *The Gregs of Quarry Bank Mill: The Rise and Decline of a Family Firm, 1750-1914*. *TLS*, 27 March, 4, 3, 82.

ISRAEL, J. I. 1987. The Jews of Venice and their links with Holland and with Dutch Jewry, 1600-1700. In *Gli Ebrei e Venezia, secoli XIV-XVIII*, 95-115. Gaetano Cozzi (editor). Atti del Convegno Internazionale organizzato dall' Instituto di Storia della Società e dello Stato Veneziano della Fondazione Giorgio Cini. (Milan).

ISRAEL, J. I. 1986. The politics of international trade rivalry during the Thirty Years' War: Gabriel de Roy and Olivares' Mercantilist Projects, 1621-1645. *The International History Review*, vol. VIII, 517-549.

ISRAEL, J. I. (with Griffiths, R. T. and Wintle, M. J.) 1986. Select Bibliography of works in English on the Economic History of the Netherlands from the sixteenth to the nineteenth century. *Dutch Crossing. A Journal of Low Countries Studies*, vol. xxx, 112-127.

ISRAEL, J. I. 1986. The Dutch Merchant Colonies in the Mediterranean during the seventeenth century. *Renaissance and Modern Studies*, vol. XXX, 87-108.

ISRAEL, J. I. 1987. Duarte Nunes da Costa (Jacob Curiel), of Hamburg, Sephardi Nobleman and Communal Leader, 1585-1664. *Studia Rosenthaliana*, vol. xxi, 14-34.

JOHNSON, D. W. J. (with Johnson, Madeleine.) 1987. *The Age of Illusion: Art and Politics in France 1918-1940.* (London: Thames and Hudson.) 160 pp. (284 illustrations).

JOHNSON, D. W. J. 1987. Le gouvernement britannique et la France en 1944. In *Normandie 44*, 269-283. F. Bédarida (editor). (Paris: Albin Michel).

JOHNSON, D. W. J. 1987. Les anglais et les gaullistes. In *Les Armées Françaises pendant la Seconde Guerre Mondiale 1939-1945*, 171-183. (Paris: École Nationale Supérieure des Techniques Avancées).

JOHNSON, D. W. J. 3 March 1987. BBC World Service. Book Choice. Dreyfus.

JOHNSON, D. W. J. 27 March 1987. Channel Four TV. The Book Programme. Dreyfus.

JOHNSON, D. W. J. 7 July 1987. BBC World Service. Book Choice. Simone Weil.

JOHNSON, D. W. J. 13 July 1987. BBC French Service. Simone Weil et le catholicisme.

KUHRT, AMÉLIE, 1987.Survey of written sources available for the history of Babylonia under the later Achaemenids. In *Achaemenid History I: Sources, Structures and Synthesis*, 147-157. H. Sancisi-Weerdenburg (editor). (Leiden: Nederlands Instituut voor het Nabije Oosten).

KUHRT, AMÉLIE, 1987. Usurpation, conquest and ceremonial: from Babylon to Persia. In *Rituals of Royalty: Power and Ceremonial in Traditional Societies*, 20-55. D. Cannadine and S. Price (editors). (Cambridge: Cambridge University Press).

LYNCH, J. 1986. *The Spanish American Revolutions 1808-1826* (2nd edition, revised). (New York: Norton.) 448 pp.

MILLAR, F. G. B. (editor with Vermes, G. and Goodman, M.) 1987. E. Schürer, *The History of the Jewish People in the Age of Jesus Christ*, III, 2. (Edinburgh: T. and T. Clark.) 310 pp.

MILLAR, F. G. B. 1987. Polybius between Greece and Rome. In *Greek Connections: Essays on Culture and Diplomacy*, 1-18. J. T. A. Koumoulides (editor). (Notre Dame: University of Notre Dame Press).

MILLAR, F. G. B. 1986. Politics, persuasion and the people before the Social War, 150-90 B.C., *J. of Roman Studies*, vol. 76, 1-11.

MILLAR, F. G. B. 1986. A new approach to the Roman Jurists. *J. of Roman Studies*, vol. 76, 272-280.

MOMIGLIANO, A. D. 1986. *Génesis y desarollo de la biografía en Grecia.* (México: Fondo de Cultura Económica.) 164 pp.

MOMIGLIANO, A. D. 1987. *Storia e storiografia antica.* (Bologna: Il Mulino.) 396 pp.

MOMIGLIANO, A. D. 1986. History between Medicine and Rhetoric. *Annali Scuola Normale Superiore Pisa*, 3, 15, 3, 1985, 767-780.

MOMIGLIANO, A. D. 1986. Questioni di metodologia della storia delle religioni. *Rivista Storica Italiana*, vol. 98, no. 1, 120-125.

MOMIGLIANO, A. D. 1986. The Disadvantages of Monotheism for a Universal State. *Classical Philology*, vol. 81, no. 4, 285-297.

MOMIGLIANO, A. D. 1986. Ancient biography and the study of religion in the Roman Empire. *Annali Scuola Normale Superiore Pisa*, 3, 16, 1, 25-44.

MOMIGLIANO, A. D. 1986. Indicazioni preliminari su Apocalissi ed Esodo nella tradizione giudaica. *Rivista Storica Italiana*, vol. 98, no. 2, 353-366.

MOMIGLIANO, A. D. 1986. Prophetie und Geschichtsschriebung. In *Ehrenpromotion Arnaldo Momigliano*, hrsg. J. Petersohn (Schriften der Universitätsbibliothek Marburg, 27), Marburg, 13-21.

MOMIGLIANO, A. D. 1986. German Romanticism and Italian Classical Studies. *Storia della Storiografia*, vol. 9, 62-74.

MOMIGLIANO, A. D. 1986. Sull'inesistenze di un filone romantico nella filologia classica italiana del sec. XIX. *Annali Scuola Normale Superiore Pisa*, 3, 16, 1, 67-82.

MOMIGLIANO, A. D. 1986. Two Types of Universal History: The Cases of E. A. Freeman and Max Weber. *J. of Modern History*, vol. 58, no. 1, 235-245.

MOMIGLIANO, A. D. 1986. Moses Finley. *Belfagor*, vol. 41, no. 5, 25-44.

MOMIGLIANO, A. D. 1987. Historiography of Religion: The Western Tradition. In *The Encyclopedia of Religion*, vol. 6, 383-390. (New York: Macmillan).

MOMIGLIANO, A. D. 1987. Roman Religion: The Imperial Period. *Ibid.*, vol. 12, 462-471.

MOMIGLIANO, A. D. 1987. Sibylline Oracles. *Ibid.*, vol. 13, 305-307.

MOMIGLIANO, A. D. 1987. Cybele. *Ibid.*, vol. 4, 185-187.

MOMIGLIANO, A. D. 1987. Fortuna. *Ibid.*, vol. 5, 394.

MOMIGLIANO, A. D. 1987. Penates. *Ibid.*, vol. 11, 228.

MOMIGLIANO, A. D. 1987. Classical Scholarship for a Classical Country: The Case of Italy in the Nineteenth and Twentieth Centuries. *The American Scholar*, Spring, 73-89.

MOMIGLIANO, A. D. 1987. Prefazione a Moses Finley. *Problemi e metodi di storia antica*. Bari: Laterza, V-XII.

MOMIGLIANO, A. D. 1987. L'Histoire entre médecine et rhétorique. In *Certitudes et incertitudes de l'histoire*, 31-41. Sous la direction de G. Gadoffre. (Paris: Presses Universitaires de France).

MOMIGLIANO, A. D. 1986. Review of Edward Shils *Tradition;* Jeroslav Pelikan *The Vindication of Tradition*. *Storia della Storiografia*, vol. 9, 159-162.

MORGAN, D. A. L. 1986. The individual style of the English Gentleman. In *Gentry and Lesser Nobility in Late Medieval Europe*, 15-35. M. Jones (editor). (Gloucester and New York: Alan Stutton and St. Martin's Press).

NORTH, J. A. 1986. Religion and politics from Republic to Principate. *J. of Roman Studies*, LXXVI, 251-258.

PARISH, P. J. 1987. American nationalism and the nineteenth-century constitution. In *The American Constitution: the First Two Hundred Years, 1787-1987*, 63-82. J. Smith (editor). (Exeter Studies in History, no. 16) (Exeter: University of Exeter).

ROSEN, F. 1987. *Progress and Democracy: William Godwin's Contribution to Political Philosphy*. (New York and London: Garland Publishing.) 321 pp.

ROSEN, F. (with Feaver, G.) (editors). 1987. *Lives, Liberties and the Public Good: New Essays in Political Theory.* (London: Macmillan Press and London School of Economics.) 272 pp.

ROSEN, F. 1987. Bentham and Mill on Liberty and Justice. *Ibid.*, 121-138.

ROSEN, F. 1987. 'Jeremy Bentham', 'Simone Weil'. In *The Blackwell Encyclopaedia of Political Thought*, 37-40, 547-548. D. Miller (editor). (Oxford: Basil Blackwell).

ROSEN, F. 1987. Bentham's constitutional theory and the Greek constitution of 1822. *Balkan Studies*, vol. 25, 31-54 (1984). (Published in 1987.)

ROSEN, F. (with Schofield, T. P.) (editors). 1987. *The Bentham Newsletter*, no. 11. 61 pp.

SCHOFIELD, T. P. 1986. Conservative political thought in Britain in response to the French Revolution. *Historical J.*, vol. 29, 601-622.

SCHOFIELD, T. P. 1987. A comparison of the moral theories of William Paley and Jeremy Bentham. *The Bentham Newsletter*, no. 11, 4-22.

SCHOFIELD, T. P. and CONWAY, S. R. 1987. A visit to Bentham, February 1831. *The Bentham Newsletter*, no. 11, 45-47.

SCHOFIELD, T. P. 1987. 'Economy as applied to Office' and the development of Bentham's democratic thought. In *History of Ideas Colloquium, Occasional Papers: 1, 1986.* M. Sutton (editor), Newcastle upon Tyne, March 1986. (Newcastle upon Tyne: Newcastle Polytechnic.) 48-59.

STOKES, M. B. 1986. American Liberalism and the Neo-Consensus School. *J. of American Studies*, vol. 20, 449-460.

STOKES, M. B. 22 May 1987. BBC World Service, Outlook 'The American Constitution'.

TYACKE, N. R. N. 1987. *Anti-Calvinists: the rise of English Arminianism c. 1590-1640.* (Oxford: Oxford University Press.) 305 pp.

TYACKE, N. R. N. 1987. Debate: the rise of Arminianism reconsidered. *Past and Present*, vol. 115, 201-216.

WELCH, M. G. 1986. The Finds: Compton the Anglo-Saxon Cemetery at Appledown. In *The Archaeology of Chichester and District*, 42. J. Magilton (editor). (Chichester: Chichester District Council).

HISTORY OF ART

BOUCHER, B. 1986. Bernini e l'architettura del Cinquecento: la lezione di Baldassare Peruzzi e di Sebastiano Serlio. *Bollettino de Centro . . . Andrea Palladio*, vol. XXIII, 27-43.

BOUCHER, B. 1987. *Jacopo Sansovino: L'Altarolo Mediceo (Lo Speechio del Bargello, no. 33.* Florence: Museo Nazionale del Bargello).

COOKE, L. 1986. Bill Woodrow (Exhibition catalogue) Fruitmarket Gallery, Edinburgh, 15.

COOKE, L. 1986. Impressa: Recent British Art. *Flashart*, October/November, 62-65.

COOKE, L. 1986. Terry Winters, poetic conceits. *Artscribe*, September/October, 62-65.

COOKE, L. 1986. Bill Woodrow interviewed. *Artics*, vol. 2, 42-49.

COOKE, L. 1986. German Art in the Twentieth Century. *Art-Network*, Winter/Spring, 79-86.

COOKE, L. 1987. Between image and object. In *A Quiet Revolution: Recent British Sculpture,* 34-53. Graham Beal, Mary Jane Jacobs (editors). (M.O.C.A. Chicago: Thames and Hudson).

LLOYD, J. (with Annie Coombes) 1986. Lost and Found in the Museum of Mankind. *Art History,* vol. 9, no. 4, 540-544.

LLOYD, J. 1987. V. August Macke. *Burlington Magazine,* July, 480-482.

ITALIAN

AQUILECCHIA, G. 1986. Trilemma of Textual Criticsm (Author's Alterations, Different Versions, Autonomous Works). An Italian View, In *Book Production and Letters in the Western European Renaissance. Essays in Honour of Conor Fahy,* 1-6. Anna Laura Lepschy, John Took, Dennis E. Rhodes, (editors). (London: The Modern Humanities Research Association).

AQUILECCHIA, G. 1986. *In facie prudentis relucet sapientia:* Appunti sulla letteratura metoposcopica tra Cinque e Seicento, *Giornale critico della filosofia italiana,* 6 serie, vol. VI, anno LXV (LXVII), fasc. III, Settembre-Decembre 1987, 310-330.

AQUILECCHIA, G. 1987. 'Presentazione': *Il Piacevol Ragionamento de l'Aretino: Dialogo di Giulia e Madalena,* a cura di Claudio Galderisi. Introduzione di Enrico Rufi. Roma, Salerno Editrice, 7-15.

ARMOUR, P. 1986. 'Dante's Virgil'. In *Virgil in a Cultural Tradition: Essays to celebrate the Bimillenium,* 65-76. R. A. Cardwell and J. Hamilton (editors). (University of Nottingham Monographs in the Humanities IV).

GARVIN, B. 1986. La tensione fra sintassi e metro nel Belli. In *G. G. Belli Romano, Italiano ed Europeo. Atti del Convegno internazionale di studi.* R. Merolla (ed), Roma, 12-15 Novembre 1984. (Roma: Bonacci) 285-296.

GARVIN, B. 1987. Comic features of Belli. In *New Comparative and General Literary Studies.* N.3, Summer 1987: *Comedy.* T. Hermans and H. Klein (editors), Manchester, 17-19 December 1986. (University of East Anglia) 104-116.

LEPSCHY, A. L. (with G. C. Lepschy). 1986. *Die italienische Sprache* (revised translation of *The Italian Language To-day).* (Tübingen: Narr/Francke.) (German) 320 pp.

LEPSCHY, A. L. 1985-86. Studi recenti sul Boccaccio. *Studi sul Boccaccio,* vol.15, 301-306.

LEPSCHY, A. L. 1986. Gallina's "La famegia del santolo" and Pirandello's "Tutto per bene". *The Yearbook of the British Pirandello Society,* vol. 6, 19-35.

LEPSCHY, A. L. (and others). 28 June 1987. Radio 3, Crisis in the Mirror: A re-appraisal of the theatre of Pirandello.

LINDON, J. M. A. 1987. Italian Studies: Seicento and Settecento. *The Year's Work in Modern Language Studies,* vol. 47, 507-29.

LINDON, J. M. A. 1986. New translations from Foscolo's 1803 *Poesie. Forum Italicum,* vol. 20 no. 1, 112-113.

MANZINI, M. R. (with K. Wexler). 1986. Parameters and learnability in Binding Theory. In *Parameter Setting,* 41-76. Th. Roeper and E. Williams (editors).(Dordrecht: Reidel).

PALANDRI, E. 1987. Il romanzo e il racconto. Alessandro Tamburini. Trento, March 1987, Ancona, Il Lavoro Editoriale 6.

PALANDRI, E. August 30th, 31st, 1986. RAI 3. La Mostra del Cinema di Venezia.

LATIN

CONSIDINE, P. 1986. The etymology of mênis. In *Studies in Honour of T. B. L. Webster,* 53-64. J. H. Betts, J. T. Hooker and J. R. Green (editors). (Bristol: Bristol Classical Press.)

HORSFALL, N. M. 1986. Fast. Cons. Cap. fr. xxxix: a problematic grandfather. *Zeitschrift für Papyrologie und Epigraphik,* vol. 65, 84.

HORSFALL, N. M. 1986. The Aeneas-legend and the Aeneid. *Vergilius,* vol. 32, 8-17.

HORSFALL, N. M. 1987. Non viribus aequis: some problems in Virgil's battle-scenes. *Greece and Rome,* vol. 34, 48-55.

HORSFALL, N. M. 1986. Review of F. Ahl, *Metaformations. J. of Roman Studies,* vol. 76, 322-323.

HORSFALL N. M. 1986. Review of J. Griffin, *Latin Poets and Roman Life. Ancient Society (Macquarie),* vol. 16, 100-109.

HORSFALL, N. M. 1986. Review of P. Hardie, *Virgil's Aeneid: cosmos and imperium.* TLS 29 August 983.

HORSFALL, N. M. 1987. Reviews of T. Berres, *Die Entstehung der Aeneis;* C. Brink, *English Classical Scholarship. Classical Review,* vol. 37, 15-17, 122-123.

SKUTSCH, O. 1986. Messius Cicirrus. In *Studies in Honour of T. B. L. Webster,* 223-224. J. H. Betts, J. T. Hooker and J. R. Green (editors). (Bristol: Bristol Classical Press).

SKUTSCH, O. 1987. Ennius Andromacha 81-2 Joc. (86-7 Vah.) and 101-2 (111).*Liverpool Classical Monthly,* vol. 12, 38-39.

WILLCOCK, M. M. 1986. Review of Cesare Questa, *Numeri innumeri: Ricerche sui cantica e la tradizione manoscritta de Plauto. Rivista de Filologia e di Istruzione Classica,* vol. 114, 473-480.

LIBRARY, ARCHIVE AND INFORMATION STUDIES

BUXTON, A. B. 1986. Librarianship in 2001. *Christian Librarian,* no. 10, 30-43.

BUXTON, A. B. 1986. Menu-driven systems. In *New Methods and Techniques for Information Management,* 187-225. M. Feeney (editor). (London: Taylor Graham).

BUXTON, A. B. 1987. Titles revisited. *J. of Documentation,* vol. 43, 65-68.

McILWAINE, I. C. 1987. Universal decimal classification. *J. of Documentation,* vol. 43, 70-74.

McILWAINE, J. H. St. J. (Editor). 1986. *African research and documentation.* (London: SCOLMA).

QUARRIE, P. R. 1986. The Christ Church collections books. *History of the University of Oxford,* vol. 5, 493-513.

THOMAS, D. L. 1987. Study on control of security and storage of holdings: a RAMP study with guidlines. (Paris: Unesco.) 47 pp.

THOMAS, D. L. 1987. Survey on national standards on paper and ink to be used by the administration for records creation: a RAMP study with guidelines. (Paris: Unesco.) 47 pp.

THOMAS, D. L. 1986. Architectural design and technical equipment for the physical protection and conservation of documents. *Mitteilungen des Österreichischen Staatsarchivs,* vol. 39, 233-251.

TRENNER, L. 1987. How to win friends and influence people: definitions of user-friendliness in interactive computer systems. *J. of Information Science*, vol. 13, 99-107.
VICKERY, B. C. 1986. Knowledge representation: a brief review. *J. of Documentation*, vol. 42, 145-159.
VICKERY, B. C. (with Vickery, A., Brooks, H., and Robinson, B.). 1987. A reference and referral system using expert system techniques. In *J. of Documentation*, vol. 43, 1-23.
VICKERY, B. C. 1987. Information retrieval. In *Encyclopedia of Physical Science and Technology*, vol. 6, 613-625. (New York: Academic Press).
VICKERY, B. C. (with Vickery, A.) Information science in theory and practice. (London: Butterworth). 384 pp.
WATSON, A. G. 1987. The manuscript collection of Sir Walter Cope (d.1614). *The Bodleian Library Record*, vol. 12, part 4, 262-297.

PHILOSPHY

BUDD, MALCOLM 1987. Wittgenstein on Seeing Aspects. *Mind*, vol. XCVI, no. 381, 1-17.
BUDD, MALCOLM 1987. Motion and Emotion in Music: A Reply. *British J. of Aesthetics*, vol. 27, no. 1, 51-4.
HEINAMAN, R. E. 1986. Incompatibilism without the principle of alternative possibilities. *Australasian Journal of Philosophy*, vol. 64, 266-76.
HEINAMAN, R. E. 1986. The Eudemian Ethics on Knowledge and Voluntary Action. *Phronesis*, vol. 31, 128-47.
HEINAMAN, R. E. 1986. Once More: Being in the Sophist. *Archiv für Geschichte der Philosophie*, vol. 68, 121-25.
HONDERICH, TED 1987. Causation: Rejoinder to Sanford. *Philosophy*, vol. 62, 77-84.
HONDERICH, TED 3 August, 1986. Independent Television Network, 'Are We Free to Choose?'.
HONDERICH, TED 19 January, 1987. Independent Television Network, 'The State of the Nation'.
HONDERICH, TED 1987. Violence and Politics. *New Humanist*, vol. 102, no. 2, 12-14.
WOLFF, J. 1986. Barnett, Bargaining and the Nash Solution. *Nous*, vol. XX, no. 4, 493-506.
WOLLHEIM, RICHARD 1986. Imagination and pictorial understanding. *Supp. Vol. Aristotelian Soc.*, Vol. LX, 45-60

PHONETICS AND LINGUISTICS

ABBERTON, E., FOURCIN, A. J., HAZAN, V. 1986. Phonological competence with profound hearing loss. *Speech, hearing and Language: Work in Progress, UCL*, vol. 2, 1-14.
ASHBY, M. G. 1986. Subjective segmentation points for an intervocalic consonant. *Ibid*, 15-30.
BALDWIN, J. 1986. A grid analysis of Bulgarian asymmetrical rhythms. *Ibid*, 31-44.

BLACK, M. (with Byng, S.) 1986. Prosodic constraints on lexical access in reading. *Cognitive Neuropsychology,* vol. 3, no. 4, 369-409.

BOOTLE, C. 1986. Computer graphics for speech therapy. *Speech, Hearing and Language: Work in Progress, UCL,* vol. 2, 45-56.

BRODY, M. 1985. On the complementary distribution of empty categories. *Linguistic Inquiry,* vol. 16, no. 4, 505-546.

DAVIES, P., LINDSEY, P., FULLER, H., FOURCIN, A. 1986. Variation in glottal open and closed phases for speakers of English. *Proc. Inst. Acoustics: Speech and Hearing,* vol. 8, no. 7, 539-546.

DOUEK, E. 1985. Cochlear implants. *Br. Med. J.,* vol. 290, 415-416.

FOURCIN, A. (with Miller, D. R., Taylor, M. R.) 1986. Voiscope analysis of abnormal laryngeal excitation. *Proc. Inst. Acoustics: Speech and Hearing,* vol. 8, no. 7, 249-256.

FOURCIN, A. J. 1987. Phonetics and cochlear prostheses. *Audiology in Practice,* vol. 4, no. 2, 1-4.

HARRIS, J. 1986. Expanding the superstrate: habitual aspect markers in Atlantic Englishes. *English World-Wide,* vol. 7, 171-199.

HARRIS, J. 1986. Phonetic constraints on sociolinguistic variation. *Sheffield Working Papers in Language and Linguistics,* vol. 3, 120-143.

HAZAN, V., FOURCIN, A. J. 1986. Speech pattern assessment of hearing-impaired children. *J. Acoust. Soc. Am.,* vol. 79 (S1), S11(A).

HAZAN, V., FOURCIN, A. J., ABBERTON, E. 1986. Speech pattern audiometry for hearing-impaired children. *Speech, Hearing and Language: Work in Progress, UCL,* vol. 2, 57-72.

HAZAN, V. 1 July 1986. BBC World Service, 'The Human Voice'.

HOUSE, J., JOHNSON, M. 1986. Modelling nuclear tones for speech synthesis-by-rule. *Speech, Hearing and Language: Work in Progress, UCL,* vol.2, 85-102.

HOWARD, D. M., MAIDMENT, J. A., SMITH, D. A., HOWARD, I. S. 1986. Towards a comprehensive quantitative assessment of the operation of real-time fundamental frequency extractors. *Ibid.,* 103-118.

HOWARD, D. M. 1986. Digital peak-picking fundamental frequency estimation. *Ibid.,* 151-164.

HOWARD, D. M., BOOTLE, C. M. (with Welch G. F., Gibbon, R. R.) 1987. The assessment and development of singing ability - Initial results with a new system. *Proc. Inst. Acoustics,* vol. 9, 159-166.

HOWARD, I. S., HOWARD, D. M. 1986. Quantitative comparisons between time domain speech fundamental frequency estimation algorithms. *Ibid.,* vol. 8, no. 7, 323-330.

HOWARD, I. S. 1986. A menu based system for the manipulation of speech data on a Masscomp computer. *Speech, Hearing and Language: Work in Progress, UCL,* vol. 2, 73-84.

HUCKVALE, M. A. 1986. Modelling acoustic and phonetic variability of speech. *Ibid.,* 119-130.

HUDSON, R. A. 1986. Frame semantics, frame linguistics, frame . . . *Quaderni di Semantica,* vol. 7, 95-111.

HUDSON, R. A. 1986. Systemic grammar. *Linguistics,* vol. 24, 791-815.

HUDSON, R. A. 1986. Sociolinguistics and the theory of grammar. *Ibid.,* vol. 24. 1053-1078.

HUDSON, R. A. 1986. A prolog implementation of word grammar. *Speech, Hearing and Language: Work in Progress, UCl,* vol. 2, 131-150.

HUDSON, R. A. 1987. Zwicky on heads. *J. of Linguistics*, vol. 23, 109-132.

JOHNSON, M., HOUSE, J. 1986. An accent-unit model of intonation for text-to-speech synthesis. *Proc. Institute of Acooustics: Speech and Hearing*, vol. 8, no. 7, 409-416.

LE CLEZIO, Y. 1986. Possible factors of the English accent in French. *Speech, Hearing and Language: Work in Progress, UCL*, vol. 2, 237-253.

LINDSEY, G. A., DAVIES, P., FOURCIN, A. J. 1986. Laryngeal coarticulation effects in English VCV sequences. *Ibid.*, 165-176.

LINDSEY, G. A., JOHNSON, M., FOURCIN, A. Diminution of High Frequency energy as a cue to the voicelessness of following consonants. *Proc. Inst. Acoustics: Speech and Hearing*, vol. 8, no. 7, 25-30.

MAIDMENT, J. M., HOWARD, D. M., SMITH, D. A. J. 1986. Time-structure measures of vocal fold vibration. *Ibid.*, 523-530.

RAMSARAN, S. M. (Pronunciation Editor.) 1986. *Dictionary of Britain.* (Oxford: Oxford University Press).

ROSEN, S., FOURCIN, A. J. 1986. Frequency selectivity and the perception of speech. In *Frequency Selectivity in Hearing*, 373-487. B. C. J. Moore (editor). (London: Academic Press).

ROSEN, S. 1986, Monaural phase sensitivity: Frequency selectivity and temporal processes. In *Auditory Frequency Selectivity*, 419-426. B. C. J. Moore and R. D. Patterson (editors), (New York: Plenum Press).

ROSEN, S. 1987. Phase and the hearing-impaired. In *The Psychophysics of Speech Perception*, 481-488. M. E. H. Schouten (editor). (Dordrecht: Martinus Nijhoff).

ROSEN, S. (with Howell P.) 1987. Perceptual integration of rise time and silence in affricate/fricative and pluck/bow continua. *Ibid.*, 173-180.

ROSEN, S. (with Howell P.) 1987. Is there a natural sensitivity at 20 ms in realative tone-onset-time continua? A reanalysis of Hirsh's (1959) data. *Ibid.*, 199-209.

SEGGIE, D. A. 1986. The use of signal instantaneous frequency for voicing determination. *Speech, Hearing and Language: Work in Progress, UCL*, vol. 2, 177-192.

SEGGIE, D. A. (with Leeman, S., Roberts, V. C.) 1986. Information extraction from ultrasound pulse-echo signals. In *Electronics in Medicine and Biology*, 119-123. K. Copeland (editor). (London: Institute of Electronic and Radio Engineers).

SEGGIE, D. A. (with Chandler, P., Ferrari, L. A., Leeman, S.) 1987. Validity of the Born and Rytov approximations. In *Progress in Underwater Acoustics*, 35-41. H. Merklinger (editor). (New York: Plenum Press).

SEGGIE, D. A. 1986. The application of analytic signal analysis in speech processing. In *Proc. Inst. of Acoustics and Hearing*, vol. 8, no. 7, 85-92.

SEGGIE, D. A. (with Leeman, S., Doherty, G. M., Costa, E. T.). 1986. Texture and speckle: telling them apart. In *Ultrasonic Tissue Characterization and Echographic Imaging*, vol. 5. 173-185. J. M. Thijssen and V. Mazzeo (editors). Ferrara, Italy, 1985. (Nijmegen: University of Nijmegen).

SEGGIE, D. A. (with Costa, E. T., Leeman, S., Richardson, P. C.). 1986. Measurement and calibration of transducer fields. In *Proc. Inst. of Acoustics: Ultrasound in Medicine*, vol. 8, no. 2, 113-118.

SEGGIE, D. A. (with Leeman, S.) 1987. A deterministic approach towards ultrasonic speckle reduction. *IEE Proc.*, vol. 134, A, 2, 188-192.

SEGGIE, D. A. (with Leeman, S., Roberts, V. C.) 1987. Dirac, Faraday, Born, and Medical Imaging. *Ibid.*, 101-106.

SEGGIE, D. A. (with Doherty, G. M., Leeman, S.) 1987. Pulse-echo imaging via zero manipulation. *J. Acoustic. Soc. Am*, vol. 81, no. 5, 1465-1470.

SMITH, N. V., WILSON, D. 1985. What is a language? In *Language: Introductory Readings* (4th edition), 325-339. V. P. Clarke, P. A. Eschholz and A. F. Rosa (editors). (New York: St. Martin's Press).

SMITH, N. V. 1987. Universals and typology. In *Noam Chomsky: Consensus and Controversy*, 57-66. S. Modgil and C. Modgil (editors). (The Falmer Press).

SMITH, N. V. 1987. Reply to Kilby. *Ibid.*, 77-78.

SMITH, N. V. 1987. Relevance theory and first language acquisition. In *Encontro de linguistas: Actas*, 43-63. H. Alves (editor). (Braga: University of Minho).

SMITH, N. V. 1987. A teoria da relevançia e a acquisicão da lingua materna. *Ibid.*, 107-129. (Portuguese translation).

STOCK, D., ROSEN, S. 1986. Frequency discrimination and resolution at low frequencies in normal and hearing-impaired listeners. *Speech, Hearing and Language: Work in Progress, UCL*, vol. 2, 193-222.

WALLIKER, J. R., FOURCIN, A. J. 1987. Signal-processing hearing aids for the totally and profoundly deaf. *Annals of Otology, Rhinology and Laryngology*, no. 96 (Suppl. 128), 74-76.

WELLS, J. C. 1987. Non-RP varieties of English. In *Spoken Discourse - Phonetics Theory and Practice*, 21-27. J. Morley and A. Partington. (editors). (U. di Camerino: Instituto degli studi linguistic).

WELLS, J. C. I February 1987. English by Radio 'Speaking of English'.

WELLS, J. C. 20 February 1987. 2GB87 Sydney. 'Live from London'.

WELLS, J. C. 3 March 1987. BBC Radio Cymru, Post Prynhawn (In Welsh).

WELLS, J. C. 13 April 1987. BBC R4, Options 'Talking of languages'. Excerpt repeated in Pick of the Week, 1 and 2 May.

WELLS, J. C. 1 July 1987. BBC TV, Newsnight.

WILSON, D. (with Sperber, D.) 1986. Inference and implicature in utterace interpretation. In *Reasoning and Discourse Processes*, 241-263. T. Myers, K. Brown and B. McGonigle (editors). (London: Academic Press).

WILSON, D. (with Sperber, D.) 1986. Pragmatics and modulatiry. In *Chicago Linguistic Society 22, Papers from the Parasession on Pragmatics and Grammatical Theory*, 67-84. A. Farley, P. Farley and K. E. McCullough (editors). (Chicago University Press).

WILSON, D. (with Sperber, D.) 1986. Façons de parler. In *Cahiers de Linguistique Française*, vol. 7, 9-27.

WILSON, D. (with Sperber, D.) 1986. Réponse à Jacques Jayez. *Sigma*, vol. 10, 47-49.

WILSON, D. (Sperber, D.) An outline of relevance theory. *Encontro de Linguistas: Acta*, 19-24. (Braga, Portugal).

SCANDINAVIAN STUDIES

ALLAN, R. D. S. 1986. A choice aspect of Danish grammar: The adverbial *-t* morpheme in Danish. In *Proc. of the Conference of British Scandinavists Held at Saint David's University College, Lampeter, April 1985* Laurie Thompson (editor). (Lampeter: Saint David's University College.) 287-311.

ALLAN, R. D. S. 1986. Danish studies. Language. *The Year's Work in Modern Language Studies*, vol. 47, (1985), 881-885.

BARNES, M. P. 1986. Subject, nominative and oblique case in Faroese. *Scripta Islandica*, vol. 37, 13-46.

FOOTE, P. G. 1986. Three dream-stanzas in *Hrafns saga Sveinbjarnarsonar*. In *Sagnaskemmtun. Studies in Honour of Hermann Pálsson*, 99-109. R. Simek (editor). (Vienna: Hermann Böhlaus Nachf.).

FOOTE, P. G. 1986. Ósamfelld umræða um óskýrt atriði úr ósamdri spurningaskrá varðandi lauslæti í fornöld. In *Equus Troianus sive Trójuhestur tygjaour Jonna Louis-Jensen 21. október 1986*, 14-17. (Reykjavík: Árnastofnun).

FOOTE, P. G. 1986. Pre-Viking contacts between Orkney and Scandinavia. In *The People of Orkney*, 175-186. R. J. Berry and H. N. Firth (editors). (Kirkwall: The Orkney Press).

GUÐRÚN SVEINBJARNARDÓTTIR. 1986. *Rannsókn á Kópavogsþingstað*. (Kópavogur: The Town of Kópavogur.) (Icelandic) 160 pp.

MUNCH-PETERSEN, T. 1986. "Common sense not bravado": the Butler-Prytz interview of 17 June 1940. *Scandia*, vol. 52, no. 1, 73-114.

PERKINS, R. M. (editor). 1986. *Saga-Book* XXII, no. 1.

PERKINS, R. M. 1986. Egils saga Skallagrímssonar. *Reallexikon der germanischen Altertumskunde*, vol. 6, 469-475.

PETHERICK, K. R. 1985. The challenge of a dualistic universe. Sven Delblanc's novels. *ADAM, International Review*, nos. 455-467, 114-117.

PETHERICK, K. R. (with Stockenström, G.) 1986. August Strindberg. The Occult Diary 1896-1908. Extracts. *Swedish Book Review*, Supplement, 19-25.

WALTON, S. J. 1986. Wergeland's *Fjeldstuen* and Bjørnson's *Bondefortællinger*: the dilemma of Liberalism. In *Proc. of the Conference of British Scandinavists Held at Saint David's University College, Lampeter, April 1985*. Laurie Thompson (editor). (Lampeter: Saint David's University College.) 199-214.

WALTON, S. J. 1986. Når litteraturen skiftar språk. *Syn og Segn*, vol. 93, 166-171.

WALTON, S. J. 1986. What effect did England have on Vinje? *Skandinavisztikai füzetek*, vol. 1, no. 2, 83-106.

WALTON, S. J. 1986. The teaching of Norwegian in Britain. *Anglo-Norse Review* (Summer), 9-11.

WALTON, S. J. 1986. Review of Kjell Venås *For Noreg og Ivar Aasen - Gustav Indrebø i arbeid og strid*. *Norsk lingvistisk tidsskrift*, vol. 4, no. 1-2, 153-159.

SPANISH AND LATIN AMERICAN STUDIES

GARCIA GOMEZ, A. M. et al, 1986. 'Spanish Literature'. In *Encyclopaedia Brittannica*, vol. 28, 76a-84b. (Encyclopaedia Britannica Inc. Chicago-London).

TORRENTS, N. 1986. 'El negro de Motherwell'. In *Catálogo a la Exposición de Robert Motherwell* (Palma de Mallorca), 2-14.

TORRENTS, N. 1986. 'Robert Motherwell and Jim Bird'. In *Sala Pelaires* (Palma de Mallorca), 5-8.

AUSTIN, R. C. 1986. The Westland Affair - Open Government by Error. *Current Legal Problems*, vol. 39, 269-282.

AUSTIN, R. C. 1987. The Wright Affair - The Wrong Response. *Parliamentary Affairs*, vol. 40, 319-324.

AUSTIN, R. C. and OLIVER, D. 1987. Political and constitutional aspects of the Westland Affair. *Pariamentary Affairs*, vol. 40, 20-40.

BUTLER, W. E. (with Hepple, B. A. and Neal, A. C.) (editors) 1987. *Comparative Labour Law: Anglo-Soviet Perspectives*. (Aldershot: Gower.) xii + 219 pp.

BUTLER, W. E. (editor) 1987. *Justice and Comparative Law: Anglo-Soviet Perspectives on Criminal Law, Evidence, Procedure and Sentencing Policy*. (Dordrecht: Nijhoff.) 244 pp.

BUTLER, W. E. (editor) 1987. Editorial Introduction. *Ibid.*, 3-4.

BUTLER, W. E. 1987. Soviet Criminal Law and Procedure in English Pedacogical Perspective. *Ibid.*, 5-14.

BUTLER, W. E. (translator) 1987. Theoretical Model of a Criminal Code (General Part). *Ibid.*, 189-240.

BUTLER, W. E. (with Butler, D. J.) 1986. *The Golden Era of American Bookplate Design: 1890-1940*. (Frederikshavn: The Bookplate Society and Forlaget Exlibristen.) 168 pp.

BUTLER, W. E. 1986. *Leslie C. Benenson*. (Frederikshavn: Exlibristen.) 30 pp.

BUTLER, W. E. 1986. *Yearbook on Socialist Legal Systems*. (Dobbs Ferry: Transnational Publishers Inc.) ix + 207 pp.

BUTLER, W. E. 1986. Soviet legislation in English translation: 1975-85. *Ibid.*, 169-207.

BUTLER, W. E. (with Hepple, B. A. and Neal, A. C.) (editors) 1987. Foreword. In *Comparative Labour Law: Anglo-Soviet Perspectives*. xi-xii. (Aldershot: Gower).

BUTLER, W. E. 1987. Soviet Labour Law in English Comparative Legal Studies. *Ibid.*, 3-9.

BUTLER, W. E. (translator) 1987. Statute on the Labour Law Inspectorate. *Ibid.*, 185-87.

BUTLER, W. E. (translator) 1987. Model Statute on the Production Brigade, Brigade Council, Brigade Leader, and Council of Brigade Leaders. *Ibid.*, 188-202.

BUTLER, W. E. 1987. Additional Reading on Soviet Labour Law. *Ibid.*, 217-219.

BUTLER, W. E. (translator) 1987. Law of the Union of Soviet Socialist Republics on Labour Collectives and on increasing their role in the Management of Enterprises, Institutions and Organisations. *Ibid.*, 203-216.

BUTLER, W. E. 1987. Foreword. In *Bookshop Memories*, 3-4. George Orwell (author). (Baarn: Blokland).

BUTLER, W.E. 1987. Law and Reform. In *The Soviet Union under Gorbachev*, 55-79. M. McCauley (editor). (London: Macmillan).

BUTLER, W. E. 1986. Bookplate designs by Valerii Andreevich Mishlin. *Nordisk Exblibris Tidsskrift*, vol. 38, 58-61.

BUTLER, W. E. 1986. The Bookplate Legacy of Jacques Hnizdovsky. *The Bookplate J.*, vol. 4, 51-60.

BUTLER, W. E. 1986. English artists and American bookplate design. *Antiquarian Book Monthly Review*, vol. 13, no. 11, 422-425.

BUTLER, W. E. 1986. Igirisu ni okeru Shakai-shugi-ho Kyoiku: Kenya no Genjo. *Mado*, no. 3, 30-35.

BUTLER, W. E. 1986. Judicial settlement of disputes in Russian International Legal Doctrine: The legacy of L. A. Kamarovskii. *Emory J. of International Dispute Resolution*, vol. 1, 32-49.

BUTLER, W. E. 1986. Portrait of a Bookplate: Dennis Yates Wheatley. *The Bookplate J.*, vol. 4, 92-94.

BUTLER, W. E. 1986-87. Soviet Union: The Transition to the Gorbachev Era. *J. of Family Law*, vol. 15, 237-243.

BUTLER, W. E. 1987. *Ex Libris:* a thriving art . . . in Russia. *Christian Science Monitor*, 6 July 1987, 30-31.

BUTLER, W. E. 1987. Innocent Passage and the 1982 Convention: The Influence of Soviet Law and Policy. *American J. of International Law*, vol. 81, 331-347.

BUTLER, W. E. 1987. International and Municipal Law: some reflections on British practice. *Ritsumeikan Law Review*, no. 2, 83-92.

BUTLER, W. E. 1987. Union of Soviet Socialist Republics: Decree on Joint Enterprises with Western and Developing Countries. *International Legal Materials*, vol. 26, 749-758.

BUTLER, W. E. 1987. Union of Soviet Socialist Republics: Statute on Entry into the USSR and Exit from the USSR. *Ibid.*, 425-432.

BUTLER, W. E. 1987. Vzaimodeistvie mezhdunarodnogo i natsional'nogo prava (Na primere Velikobritaniia). *Sovetskoe gosudarstvo i pravo*, no. 5, 112-118.

BUTLER, W. E. (translator) 1986. E. I. Makedonskaia, Dante and his Divine Comedy on Bookplates. *The Bookplate Journal*, 4, 61-72.

BUTLER, W. E. (Translator) 1987. Union of Soviet Socialist Republics: Edict concerning Taxation of Joint Enterprises in the Soviet Union and Dispute Settlement. *International Legal Materials*, vol. 24, 759.

BUTLER, W. E. 25 January 1987. BBC World Service, Crime and Punishment.

BUTLER, W. E. 9 December 1986. BBC External, Twenty-four Hours.

BUTLER, W. E. 11 December 1986. BBC Radio 4. You and Yours.

BUTLER, W. E. The Golden Era of American Bookplate Design, 1890-1940. The Fitzwilliam Museum, Cambridge University, October 1986 - January 1987; The Boston Public Library, June 1987.

CHENG, B. 1987. *General Principles of Law as Applied by International Courts and Tribunals*. (Grotius Classic Reprint Series). (Cambridge: Grotius Publ.). ii+ 490 pp.

CHENG, B. 1987. International Legal Instruments to Safeguard International Air Transport: The Conventions of Tokyo, The Hague, Montreal and a New Instrument concerning Unlawful Violence at International Airports. In *Aviation Security: How to Safeguard International Air Transport? Proc. of an International Conf. held on 22 and 23 January 1987 at the Peace Palace, The Hague*, 23-46. (Leyden: International Institute of Air and Space Law, University of Leyden.).

CHENG, B. 1986 (1984). The legal status of outer space and relevant issues: delimitation of outer space and definition of peaceful use. *Revista del Centro de Investigación y Difusión Aeronáutico-Espacial*, vol. 9, 71-99.

DENNIS, I. H. 1987. The Mental Element for Accessories. In *Criminal Law*, 40-67. P. F. Smith (editor). (London: Butterworths).

DENNIS, I. H. (editor) 1987. Introduction. In *Criminal Law and Justice*, v-xii. (London: Sweet and Maxwell).

DENNIS, I. H. 1987. Fighting Back - how far can you go? *Today*, February 10, 1987.

FREEMAN, M. D. A. (with Lord Lloyd of Hampstead) 1986. *Lloyd's Introduction to Jurispudence* (5th edition). (London: Stevens and Sons and re-issued by English Language Book Society). 1257 + xliii pp.

FREEMAN, M. D. A. 1987. *Dealing with Domestic Violence.* (Bicester: CCH.) xii + 150 pp.

FREEMAN, M. D. A. (Editor.) 1986. *The Annual Survey of Family Law 1985.* (Louisville: University of Louisville.) 286 + xii pp.

FREEMAN, M. D. A. 1986. Overseas Timesharing and the Conflict of Laws. In *International Timesharing* (2nd edition), 143-161. J. Edmonds (editor). (London: Services to Lawyers Ltd.).

FREEMAN, M. D. A. 1987. Family Law Act 1986. In *Current Law Statutes Annotated 1986.* 1-75. K. Norris (editor). (London: Sweet and Maxwell).

FREEMAN, M. D. A. 1986. After Warnock - Wither the Law? *Current Legal Problems,* vol. 39, 33-55.

FREEMAN, M. D. A. 1986. England - the Trumping of Parental Rights. *J. of Family Law,* vol. 25, 91-103.

FREEMAN, M. D. A. 1987. Excluding a Former Husband or Cohabitant. *Litigation,* vol. 6, 158-63.

FREEMAN, M. D. A. 1987. For her own good. *The Law Society's Gazette,* vol. 84, 949.

GARDINER, R. K. 1986. Review of J. E. S. Fawcett *Outer Space - New Challenges to Law & Policy. Lloyd's Maritime & Commercial Law Quarterly,* August, 404.

GRANT, M. J. 1986. *Urban Planning Law* (First Supplement). (London: Sweet & Maxwell.) 150 pp.

GRANT, M. J. (Editor.) 1986-87. *Encyclopedia of Planning Law and Practice* (updating releases). (London: Sweet & Maxwell.) 4 vols. Looseleaf.

GRAY, J. E. 1987. *Taxation on Separation and Divorce.* (Bicester: CCH.) 103 pp.

GRAY, J. E. 1987. Insurance Intermediaries and the Financial Services Act. In *New Foundations in Insurance Law, Current Legal Problems,* 19-38, (London: Sweet & Maxwell.).

GURNEY, I. D. 28 & 30 November 1986. Radio 4. Law in Action.

GUEST, S. F. D. 1987. Law, Fact and Lay Questions. In *Criminal Law and Justice,* 59-72. I. H. Dennis (editor). (London: Sweet & Maxwell.).

GUEST, S. F. D. 1987. La Filosophia des Derecho Anglo-Americana. *Universitat de les Illes Balears,* vol. 15, 1-18.

HARDY IVAMY, E. R. 1986. *Encyclopedia of Oil and Natural Gas Law.* (London: Lloyd's of London Press Ltd).

HARDY IVAMY, E. R. 1987. *Encyclopedia of Carriage Law Sources.* (London: Lloyd's of London Press Ltd).

HARDY IVAMY, E. R. 1987. *Casebook on Agency* (3rd edition). (London: Lloyd's of London Press Ltd.) 145 pp.

HARDY IVAMY, E. R. 1987. *Casebook on Sale of Goods* (5th edition). (London: Lloyd's of London Press Ltd.) 192 pp.

HARDY IVAMY, E. R. 1987. *Merchant Shipping (Liner Conferences) Act 1982.* (London: Lloyd's of London Press Ltd.) 91 pp.

HARDY IVAMY, E. R. 1987. *Merchant Shipping Act 1970.* (London: Lloyd's of London Press Ltd.) 93 pp.

HEPPLE, B. A. 1986. Some problems of comparing Socialist and Capitalist systems of Labour Law. In *Comparative Labour Law: Anglo-Soviet Perspectives,* 22-28. W. E. Butler, B. A. Hepple, A. C. Neal (editors). (Aldershot: Gower).

HEPPLE, B. A. (with Bowers, J.) 1986. Trade, Labour and Employment. In *Atkin's Encyclopedia of Court Forms in Civil Proceedings* (2nd edition). 99-340. I. Persadsingh (editor). (London: Butterworths).

HEPPLE, B. A. 1987. Tort. *All England Law Reports Annual Review 1986.* J. Allen (editor). (London: Butterworths).

HEPPLE, B. A. 1987. The Crisis in EEC Labour Law. *Industrial Law J.*, vol. 16, 77-87.

HUTCHINSON, D. N. 1987. The Seaward Limit to Continental Shelf Jurisdiction in Customary International Law. *British Year Book of International Law,* vol. 56 (1985), 111-188.

HUTCHINSON, D. N. 1987. Review of Donat Pharand *The Northwest Passage: Arctic Straits. International and Comparative Law Quarterly,* vol. 36, part 1, 172-174.

JOWELL, J. L. 1987. Implementation and enforcement of Law. In *Law and the Social Sciences,* 287-318. L. Lipson and S. Wheeler (editors). (New York: Russell Sage Foundation).

JOWELL, J. L. (with Millichip, D.) 1987. Enforcement: The Weakest Link in the Planning Chain. In *Planning Control: Philosophies, Prospects and Practice,* 175-194. M. L. Harrison and R. Mordey (editors). (London: Croom Helm).

KORAH, V. 1986. *R & D and the EEC Competition Rules - Regulation 418/85.* (Oxford: ESC Publishing.) xxi + 114 pp.

KORAH, V. 1986. European Commission's Tentative View of Know-How Licensing. *EIPR* (1986), vol. 12, 379.

KORAH, V. 1987. Critical Comments on the Commission's recent decisions exempting joint ventures to exploit research that needs further development. *European Law Review,* vol. 12, 18.

KORAH, V. 1987. The draft is too narrow. *Following* European Commission unveils its plans for Know-how licensing. *Business Law Brief,* June 1987, 12.

KORAH, V. 27 May 1987. Channel 4, Magic Circle.

LESTER, A. P. 1987. Merger of the European Commission and European Court of Human Rights. *Human Rights Law J.*, vol. 8 (1987), 34-41.

LESTER, A. P. 1987. The Uncertain Trumpet: References to the Court of Justice from the United Kingdom: Equal Pay without Sex Discrimination. *Article 177 EEC: Experiences and Problems,* (1987), 164-95.

LESTER, A. P. 1986. The Sex Discrimination Legislation and Employment Practices. In *Equality in Employment: Making it work for Women and Men. Co. Down, Northern Ireland, 28 October 1986.* (Co. Down, Northern Ireland: Equal Opportunities Commission for Northern Ireland.) 11-16.

MENDELSON, M. H. 1986. Interim Measures of Protection and the Use of Force by States. In *The Use of Force in the International Community: Current Developments,* 337-60. A. Cassese (editor). (Dordrecht: Nijhoff).

NELKEN, D. (Editor.) 1986. *Criminal Law and Criminal Justice.* (London: UCL Law Faculty.) 70 pp.

NELKEN, D. 1986. Criminal Law in Context. *Ibid.*, 55-70.

NELKEN, D. 1986. Reparation in the Criminal Justice System. *Mediation,* vol. 3, no. 1, 3-5.

NELKEN, D. 1986. Beyond the Study of Law and Society. *American Bar Foundation J.* (Review Section), 323-336.

NELKEN, D. 1987. Critical Criminal Law. *J. of Law and Society,* vol. 14, no. 1, 105-117.

NELKEN, D. 1987. Review of H. W. Arthurs *Without the Law: Administrative Justice and Legal Pluralism in Nineteenth Century England, Public Law.* Summer 1987, 293-95.

OLIVER, D. 1987. *Cohabitation: The Legal Implications.* (London: CCH Editions.) 140 pp.

OLIVER, D. 1986. Constitutional reform: means and ends. *Current Legal Problems,* vol. 39, 131-156.

OLIVER, D. 1986. The independence of the judiciary. *Ibid.*, 237-243.

OLIVER, D. and AUSTIN, R. 1987. Political and constitutional aspects of the Westland Affair. *Parliamentary Affairs,* vol. 40, 20-40.

OLIVER, D. 1986. Review of J. A. G. Griffith *The Politics of the Judiciary. Legal Studies,* vol. 6, 232-236.

PETTET, B. G. (editor) 1987. *Company Law in Change: Current Legal Problems.* (London: Stevens and Sons.) 146 pp.

RIDEOUT, R. W. 1987. *Labour Law.* (Bedford: Ilex Tutorial Services.) 65 pp.

RIDEOUT, R. W. 1986. Confidentiality of Protection of Trade Secrets. *Industrial Law J.,* vol. 15, no. 3, 183-187.

RIDEOUT, R. W. 1986. The Use of the Union Rule Book in the Miners' Strike. *Current Legal Problems,* vol. 39, 213-218.

RIDEOUT, R. W. 1987. The United Kingdom Social Contract 1974-1977: Lost Opportunity or Foredoomed Disaster. Paper submitted to Brazilian Ministry of Labour, February 1987.

ROSE, F. D. 1987. *Civil Liability Statutes (Contract, Tort and Restitution).* (London: Financial Training Publications.). 160 pp.

ROSE, F. D. (Editor). 1987. *New Foundations for Insurance Law.* (London: Stevens & Sons.). 124 pp.

ROSE, F. D. 1987. The Pilotage Act 1987: annotation. In *Currrent Law Statutes 1987.* 21-1 - 21-40. K.Norris (editor). (London: Sweet & Maxwell).

ROSE, F. D. 1986. Non-Maritime Admiralty Claims. *Lloyds Maritime and Commercial Law Quarterly,* vol. 3, 276-278.

SAEED, S. 1986. *Islam: From Revelation towards Realization* (selected theme). (Islamabad: National Hijra Council.) 100 pp.

STEPHENS, D. J. 1986. Review of A. M. Tettenborn *An Introduction to the Law of Obligations. Lloyds Maritime and Commercial Law Quarterly,* August, 413-414.

TWINING, W. L. (with Tur, R.) (editors) 1986. *Essays on Kelsen.* (Oxford: Oxford University Press.) 345 pp.

TWINING, W. L. 1986. The camel in the zoo. In *Limits of Legal Radicalism,* 15-25. I. G. Shivji (editor). (Dar-es-Salaam: University of Dar-es-Salaam).

TWINING, W. L. 1986. The Boston Symposium: A Comment. *Boston University Law Review,* vol. 66, 391-399.

TWINING, W. L. 1986. Cannibalism and Legal Literature. *Oxford J. of Legal Studies,* vol. 6, 423-430.

TWINING, W. L. 1986. Bentham's Writings on Evidence. *Bentham Newletter,* no. 10, 34-40.

VELJANOVSKI, C. G. 1987. *Selling the State: Privatisation in Britain.* (London: Weidenfeld & Nicholson.) 239 pp.

VELJANOVSKI, C. G. 1987. Cable Television - Agency Franchising and Economics. In *Regulation and Public Law,* 152-184. R. G. Baldwin and B. McCrudden (editors). (London: Weidenfeld & Nicholson).

VELJANOVSKI, C. G. 1987. On the Nature of Property Rights Theory. In *Efficiency, Institutions and Economic Policy.* (Heidelberg: Springer-Verlag.).

VELJANOVSKI, C. G. 1987. An Institutional Analysis of Futures Contracting. In *Futures Markets: Their Establishment and Performance,* 13-41. B. A. Goss (editor). (New York: New York University Press.).

VELJANOVSKI, C. G. 1987. The Economics of Criminal Law and Procedure. In *Justice and Comparative Law: Anglo-Soviet Perspectives on Criminal Law, Evidence, Procedure and Sentencing Policy.* 137-153. W. E. Butler (editor). (Dordrecht: Nijhoff.).

VELJANOVSKI, C. G. 1987. Mrs. Thatcher's Worker Capitalists. *IPA Review,* Feb/April, vol. 40, no. 4, 37-39.

VELJANOVSKI, C. G. 1987. Monopoly Manacles the Capital Market. *Economic Affairs,* Feb/March, vol. 7, no. 3, 20-22.

WILLIAMS, A. 1986. Review of Ross Cranston *Consumers and the Law. Lloyd's Maritime and Commercial Law Quarterly,* part 4, 553.

WILLIAMS, A. 1987. Reviews of H. Beale, W. Bishop and M. Furmston *Contract Cases and Materials;* J. Tillotson *Contract Law in Perspective. Lloyd's Maritime and Commercial Law Quarterly,* part 7, 239-242.

WILLIAMS, A. 20 March 1987. Radio 4, Law in Action.

FACULTY OF SCIENCE

BOTANY AND MICROBIOLOGY

ALAM, S. S., STRANGE, R. N., QURESHI, S. H. 1987. Isolation of *Ascochyta rabiei* from chickpea and a convenient method for the production of copious inoculum. *The Mycologist,* vol. 21, no. 1, 20.

BELL, P. R. 1985. Introduction. In A. Arber. *The Mind and the Eye.* (Cambridge Science Classics, University Press, Cambridge).

BELL, P. R. 1986. Features of egg cells of living representatives of ancient families of ferns. *Ann. Bot.,* vol. 57, 613-621.

BELL, P. R., PENNELL, R. I. 1987. The origin and composition of nucleolus-like inclusions in the cytoplasm of fern egg cells. *J. Cell Sci,.* vol. 87, 283-290.

BELLANI, L. M., BELL, P. R. 1986. Cytoplasmic differences between the pollen grains of two cultivars of *Malus domestica* Borkh. correlated with viability and germination. *Ann. Bot.,* vol. 58, 563-568.

COOPER, G. E., ROWBURY, R. J. 1986. Virulence plasmid-associated sensitivity to acid in *Escherichia coli* and its possible significance in human infections. *J. Med. Microbiol.,* vol. 22, 231-236.

DAVIES, C. J., SOMANATH, S. D., ROWBURY, R. J. 1986. Virulence plasmid-associated sensitivity to rifampicin and novobiocin in *E. coli. Letters in Applied Microbiology,* vol. 2, 119-123.

DEENEY, C. M., GOODSON, M., ROSSOUW, F. T., ROWBURY, R. J. 1986. Suppression by ColV, I-K94 plasmid of a growth lesion in *ompA* mutants of *Escherichia coli. J. Gen. Microbiol.,* vol. 132, 2287-2295.

EVANS, M. C. W. 1987. Bound quinones in the reaction centres of bacteria and plants. In *Progress in Photosynthesis Research*, 269-275. J. Biggins (editor). (Dordrecht, The Netherlands: Martinus Nijhoff).

EVANS, M. C. W. 1987. Plant reaction centre defined. *Nature*, vol. 327, 284-285.

FAY, P. (with Van Baalen, C.) (editors) 1987. The Cyanobacteria. (Amsterdam: Elsevier Science Publishers) 540 pp.

FAY, P. (with Wyman, M.) 1987. Acclimation to the natural light climate. *Ibid.*, 347-376.

GOLDSMITH, F. B. 1986. Conservation. In *The Collins Encylopaedia of Animal Ecology*, 140-143. P. D. Moore (editor). (London: Equinox).

GOLDSMITH, F. B. 1987. Selection procedures for forest nature reserves in Nova Scotia, Canada. *Biological Conservation*, vol. 41, 17 pp.

GOODSON, M., ROWBURY, R. J. 1986. Copper sensitivity in an envelope mutant of *Escherichia coli* and its suppression by ColV, I-K94. *Letts. in Applied Microbiol.*, vol. 3, 35-39.

GRAVES, J. D., TAYLOR, K. 1986. A comparative study of *Geum rivale L.* and *G. urbanum L.* to determine those factors controlling their altitudinal distribution I. Growth in controlled and natural environments. *New Phytologist*, vol. 104, 681-691.

HICKS, S. J., ROWBURY, R. J. 1986. Plasmid-associated attachment mechanisms and chlorine resistance. *Abstracts XIVth International Congress of Microbiology, Manchester, 1986*, p. 230.

HICKS, S. J. ROWBURY, R. J. Virulence plasmid-associated adhesion of *Escherichia coli* and its significance for chlorine resistance. *J. App. Bact.*, vol. 61, 209-218.

HICKS, S. J., WHITING, G. C., TEWARI, R., ABU GHAZALEH, B., SMITH, D. G., ROWBURY, R. J. 1987. Plasmids and survival of *Escherichia coli* in water. In *Genetique, Evolution et Ecologie des Bacteries, Universite Libre de Bruxelles*. A. 10.

HYAMS, J. S. 1985. Baseless flagellation. *Nature*, vol. 314, 401.

HYAMS, J. S., KING, S. M. 1986. Isolation of mitotic spindles and spindle pole bodies from *Saccharomyces*. In *Methods in Enzymology* 134, Part C: *Structual and Contractile Proteins*, 225-232. R. B. Vallee (editor).

HYAMS, J. S. 1986. Microtubules. *J. of Biological Education*, vol. 20, 163-168.

LLOYD, C. W., HYAMS, J. S., WARN, R. (Editors) 1986. The Cytoskeleton: Cell Organization and Dynamics. *J. of Cell Science Supplement*, 5.

MANSFIELD, R. W., EVANS, M. C. W. 1986. UV optical difference spectrum associated with the reduction of electron acceptor A_1 in photosystem 1 of higher plants. *FEBS Letts.* vol. 203, 225-229.

MANSFIELD, R. W., NUGENT, J. H. A., EVANS, M. C. W. 1987. Investigation of the chemical nature of electron acceptor A_1 in photosystem 1 of higher plants. In *Progress in Photosynthesis Research*, 241-244. J. Biggins (editor). (Dordrecht, The Netherlands: Martinus Nijhoff).

MARKS, J., HAGAN, I. M., HYAMS, J. S. 1986. Growth polarity and cytokinesis in fission yeast: the role of the cytoskeleton. In *The Cytoskeleton: Cell Organization and Dynamics*, 229-241. C. W. Lloyd, J. S. Hyams and R. Warn (editors). *J. of Cell Science Supplement*, 5.

NUGENT, J. H. A. 1986. Molecular-size standards for use in radiation inactivation studies on proteins. *Biochem. J.* vol. 239, 459-462.

NUGENT, J. H. A. 1987. The molecular size of photosynthetic membrane protein complexes. In *Progress in Photosynthesis Research*, 9-11. J. Biggins, (editor). (Dordrecht, The Netherlands: Martinus Nijhoff).

NUGENT, J. H. A. 1987. Radiation inactivation studies on photosystem 1: functional sizes of electron transport reactions. *Biochem. Biophys. Acta*, vol. 890, 160-168.

PHILLIPS, R. 1987. Effects of sequential exposure to auxim and cytokinin on xylogenesis in cultivated explants of Jerusalem artichoke *(Helianthus tuberosus L.) Annals of Botany*, vol. 59, 245-250.

PHILLIPS, R., PRESS, M. C., EASON, A. 1987. Polyamines in relation to cell division and xylogenesis in cultured explants of *Helianthus tuberosus:* lack of evidence for growth - regulatory action. *J. Exp. Bot.*, vol.38, 164-172.

PHILLIPS, R. (with Jordan, E. G. and Hide, P.) 1987. Patterns of nuclear and nucleolar growth in synchronously dividing explants from tubers of *Helianthus tuberosus L. Annals of Botany*, vol. 59, 525-532.

POYNTER, D., HICKS, S. J., ROWBURY, R. J. 1986. Acid resistance of attached organisms and its implications for the pathogenicity of plasmid-hearing *Escherichia coli. Letts. in Applied Microbiol.*, vol. 3, 117-121.

REAKES, C. F. L., GANN, A. A. F., ROSSOUW, F. T., ROWBURY, R. J. 1986. Abortive infection of ColV, I-K94$^+$ strains of *E. coli* by bacteriophage Mel. *Abstracts XIVth International Congress of Microbiology, Manchester, 1986*, p. 183.

REAKES, C. F. L., GANN, A. A. F., ROSSOUW, F. T., ROWBURY, R. J. 1987. Abortive infection by bacteriophage Mel of *Escherichia coli* K12 strains bearing the plasmid ColV, I-K94. *J. Gen. Virol.*, vol. 68, 263-272.

ROWBURY, R. J., DEENEY, C. M., GOODSON, M., ROSSOUW, F. T. 1986. Suppression of *ompA* growth lesions by the ColV, I-K94 plasmid. *Abstracts XIVth International Congress of Microbiology, Manchester, 1986*, p. 117.

ROWBURY, R. J., REAKES, C. F. L., HICKS, S. J., GOODSON, M. 1987. ColV-encoded phage P1 resistance and other plasmid effects on phage sensitivity of *Escherichia coli*. In *Genetique, Evolution et Ecologie des Bacteries. Universite Libre de Bruxelles*. A3.

SMITH, N. S., MANSFIELD, R. W., NUGENT, J. H. A., EVANS, M. C. W. 1987. Evidence for the existence of electron acceptors A_0 and A_1 in cyanobacterial photosystem 1. In *Progress of Photosynthesis Research*, 245-247. J. Biggins (editor). (Dordrecht, The Netherlands: Martinus Nijhoff).

SMITH, N. S., MANSFIELD, R. W., NUGENT, J. H. A., EVANS, M. C. W. 1987 Characterisation of electron acceptors A_0 and A_1 in cyanobacterial photosystem 1. *Biochim, Biophys, Acta*, vol. 892, 331-334.

SOMANATH, S. D., HICKS, S. J., ROWBURY, R. J. 1987. Effects of antibiotics and natural inhibitors from the intestine on survival and genetic transfer by plasmid-bearing *Escherichia coli*. In *Genetique, Evolution et Ecologie des Bacteries, Universite Libre de Bruxelles*. A. 10.

STEWART, G.R., PATEL, M. (with Sumar, N.) 1987. Comparative aspects of inorganic nitrogen assimilation in higher plants. In *Inorganic Nitrogen Metabolism*, 39-44. W. R. Ullrich, P. J. Aparicio, P. J. Syrett and F. Castilla (editors). (Berlin: Springer-Verlag).

STEWART, G. R. (with Shah, N. and Smirnoff, N.) 1987. Photosynthesis and stomatal characteristics of *Striga hermonthica* in relation to its parasitic habit. *Physiol. Plantarum*, vol. 69, 699-703.

STEWART, G. R. (with Popp, M., Stewart, J. A., Holzapfel, I. and Dickie-Eskew, A.) 1986. Localization of nitrate reduction in ferns and its relationship to environment and physiological characteristics. *New Phytologist*, vol.104, 373-384.

STEWART, G. R. 1987. Physiological Biochemistry of *Striga*. In *Parasitic Weeds in Agriculture, vol. I. Striga*, 77-88. L. J. Musselman (editor). (Florida: CRC Press).

STRANGE, R. N. 1987. HPLC of phytoalexins. In *Modern Methods of Plant Analysis, New Series 5,* 121-148. H. F. Linskens and J. F. Jackson (editors). (Berlin: Springer Verlag).

SUGAWARA, F., STROBEL, G., STRANGE, R. N., SIEDOW, J., VAN DUYNE, G. D., CLARDY, J. 1987. Some novel diterpene phytotoxins from *Drechslera maydis* and *Drechslere sorghicola. Proc. of the National Academy of Sciences, U.S.* vol. 84, 3081-3085.

TEWARI, R., SMITH, D. G., ROWBURY, R. J. 1986. A motility lesion in ColV$^+$ *E. coli* strains and its possible clinical significance. *Ann. Ins. Pasteur (Microbiol),* vol. 137A, 223-237.

TEWARI, R., ROWBURY, R. J., SMITH., D. G. 1986. Autoagglutination and a motility lesion in ColV$^+$ *E. coli* strains. *Abstracts XIVth International Congress of Microbiology, Manchester, 1986,* P219.

WHITE, D. J. B. (with Wilson, K.) 1986. The Anatomy of Wood; its Diversity and Variability. (London: Stobart and Son). 309 pp.

WILKIE, D., FEARON, K. 1986. Mitochondria and cancer. In *Achievements and Perspectives in Mitochondrial Research,* 437-444. (Quaglarello editor). (Amsterdam: Elsevier Science Publishers).

WILKIE, D., COLLIER, D. C. 1987. Genetic systems in yeast and their application in drug screening. In *Enzyme Induction, Mutagen Activation and Carcinogen Testing in Yeast,* 12-40. A. Wiseman (editor). (Chichester: Ellis Horwood Limited).

WOTTON, H. R., STRANGE, R. N. 1987. Increased susceptibility and reduced phytoalexin accumulation in drought-stressed peanut kernels challenged with *Aspergillus flavus. Applied and Environmental Microbiology,* vol. 53, 270-273.

CHEMISTRY

ABU-NAMOUS, A. M. A., RIDD, J. H. (with Sandall, J. P. B.) 1986. ^{15}N nuclear polarisation in the rearrangement of 2, 6-dichloro-*N*-nitroaniline and 2, 6-dibromo-*N*-nitroaniline. *Can. J. Chem.*, vol. 64, 1124-1129.

ALI, H., PEARCE, F. L. (with Gristwood, R. W.) 1986. Some studies on the release of histamine from mast cells treated with d-Tubocurarine. *Agents and Actions,* vol. 18, 71-73.

AMBROSE, D., GHIASSEE, N. B. 1987. Vapour pressures and critical temperatures of some alkanoic acids: C_1 to C_{10} *J. chem. Thermodynamics,* vol. 19, 505-519.

ANDERSON, J. E., BETTELS, B. R. 1986. Rotation of geminal iso-propyl groups. Dynamic n.m.r. of dimethyl-di-iso-propyl cyclopropane. *Tetrahedron Lett.*, vol. 27, 3909-3910.

ANDERSON, J. E., BETTELS, B., GHARAGOZLOO, P., KOON, KAM-HANG. 1986. Dynamic n.m.r. investigation of rotation about alkyl-olefin bonds. Barriers and populations for some substituted isopropylethylenes. *J. chem. Research (S),* 420-421.

ANDERSON, J. E. (with Constant, J.F., Fahy, J., Lhomme, J.) 1987. Adenine-thymine pairing in water induced by an intercalating agent. *Tetrahedron Lett.*, vol. 28, 1777-1780.

ANDERSON, J. E. (with Heki, K., Hirota, M., Jørgensen, F. S.) 1987. Setting the anomeric effect against steric effects in simple acyclic acetals. Non-anomeric non-classical conformations. An n.m.r. and molecular mechanics investigation. *J. chem. Soc. chem. Comm.*, 554-555.

ARCE, A. J., BOYAR, ESTHER, DEEMING, A. J. 1987. Double bond shifts induced by reaction of hex-5-en-2-one with triosmium clusters. *J. organomet. Chem.*, vol. 320, 385-390.

ARCE, A. J., DE SANCTIS, YSAURA, DEEMING, A. J. 1986. Oxidative addition of 2-formyl-furan and related pyrrole and thiophene compounds at triosmium clusters. *J. organomet. Chem.*, vol. 311, 371-378.

BABAN, JEHAN A., GODDARD, J. P., ROBERTS, B. P. 1986. Laser flash photolysis-electron spin resonance kinetic studies of homolytic reactions in solution. *J. chem, Soc. Perkin II*, 1269-1274.

BABAN, JEHAN A., ROBERTS, B. P. 1986. Homolytic reactions of ligated boranes. Part 4. Electron spin resonance studies of radicals derived from secondary phosphine-boranes. *J. chem. Soc. Perkin II*, 1607-1611.

BABAN, JEHAN A., ROBERTS, B. P. 1987. Homolytic reactions of ligated boranes. Part 6. Electron spin resonance studies of dialkyl sulphide-boryl radicals. *J. chem. Soc. Perkin II*, 497-505.

BABAN, JEHAN A., ROBERTS, B. P., TSANG, ALICE C. H. 1986. E.s.r. studies of *N*-alkyl-*N*-dialkylborylaminyl radicals in solution. *J. chem. Res. (S)*, 334-335.

BANTHORPE, D. V. 1987. The induction and sustenance of mono- and sequi-terpene biosynthesis in plant cell cultures: a theoretical discussion. In *Cell culture and somatic cell genetics of plants*, 230-247. I. K. Vasil and F. Constabel (editors). (Orlando, Fla: Academic Press).

BANTHORPE, D. V. 1987. Bonded plant terpenoids. In *The use of enzymes in plant biotechnology*, 20-26. C. Ratledge (editor). (London: The Lab. of the Government Chemist).

BANTHORPE, D. V., BRANCH, STEPHANIE A. 1987. The biosynthesis of C_5-C_{20} terpenoid compounds. *Natural Product Reports*, vol. 4, 157-173.

BANTHORPE, D. V., GREY, T. J., POOTS, I. (with Fordham, W. D.) 1986. Monoterpene metabolism in cultures of *Rosa* species. *Phytochemistry*, vol. 25, 2321-2326.

BARROW, P., BULLEN, J. V., DENT, ANDREA, MURPHY, T., RIDD, J. H., SABEK, OMAIMA. 1986. The rearrangement of aromatic nitro-compounds in strongly acidic media. *J. chem. Soc. chem. Comm.*, 1649-1650.

BLOODWORTH, A. J., BOWYER, K. J., MITCHELL, J. C. 1987. Stereochemical evidence for an alkylated perepoxide intermediate. *J. org. Chem.*, vol. 52, 1124-1128.

BLOODWORTH, A. J., CRICH, D., MELVIN, TRACY. 1987. The *cis*-cyclo-oct-4-enyl radical is reluctant to rearrange. *J. chem. Soc. chem. Comm.*, 786-787.

BLOODWORTH, A. J., EGGELTE, H. J. (with Dawes, Helen M., Hursthouse, M. B., Walker, N. P. C.) 1986. Crystal and molecular structures of 8-bromo-6, 7-dioxabicyclo[3.2.1]octane, 9-bromo-7, 8-dioxabicyclo[4.2.1]nonane, and 10-bromo-8, 9-dioxabicyclo[5.2.1]decane. *J. chem. Soc. Perkin II*, 991-994.

BLOODWORTH, A. J., HARGREAVES, N. 1987. Conversion of bicyclo[2.1.0]pentane into 2,3-dioxabicyclo[2.2.1]heptane *via* t-butyl peroxymercuriation. *Tetrahedron Letters*, vol. 28, 2783-2784.

BLOODWORTH, A. J., HARGREAVES, N., MITCHELL, J. C. 1986. Reactions of β- and γ-halogenoalkyl peroxides with Lewis acids: antimony pentachloride *versus* silver trifluoroacetate. *J. chem. Research (S)*, 390-391.

BOYAR, ESTHER, DEEMING, A. J., RANDLE, N. P. (with Bates, P. A., Hursthouse, M. B.) 1987. Triosmium clusters containing ligands derived from tropone (cycloheptatrienone): molecular structure of an oxidative addition product $[Os_3H(\mu_3\text{-}C_7H_5O)(CO)_9]$. *J. chem. Soc. Dalton*, 551-555.

BURNS, G. R., CLARK, R. J. H. 1986. Pressure dependence of the Raman spectrum of crystalline tetraphosphorus triselenide. *J. phys. Chem. Solids*, vol. 47, 1049-1055.

CALLOMON, J. H. 1986. New discoveries in the Jurassic of Alaska. In *Report No 3, IUGS/IGCP Project 171: Circum-Pacific Jurassic Research Group, Topic H: Invertebrata, North America*, 29. G. E. G. Westermann (editor). (Hamilton, Ont.: McMaster University).

CHAN, W., COURTNEIDGE, J. L., DAVIES, A. G., NEVILLE, A. G. (with Evans, J. C., Rowlands, C. C.) 1986. The electron spin resonance spectra of 1-adamantylcyclobutadiene radical cations. *J. chem. Soc. Perkin II*, 2017-2023.

CHOTHIA, C. H. (and others) 1986. The predicted structure of immunoglobulin D1.3 and its comparison with the crystal structure. *Science*, vol. 233, 755-758.

CHOTHIA, C. H. (with Basford, D., Lesk, A. M.) 1987. Determinants of a protein fold: unique features of the globin amino acid sequences. *J. Mol. Biol.*, vol. 196, 199-216.

CHOTHIA, C. H. (with Lesk, A. M.) 1986. The "crystalline molecule" image of Proteins. *Gazz. Chim. Ital.*, vol. 116, 557-560.

CHOTHIA, C. H. (with Lesk, A. M., Levitt, M.) 1986. Alignment of the amino-acid sequences of distantly related proteins using variable gap penalties. *Prot. Eng.*, vol. 1, 77-78.

CLARK, R. J. H. (Editor) 1986. *Chemistry of Pseudohalides* by A. M. Golub, H. Köhler, and V. V. Skopenko. (Amsterdam: Elsevier). 479 pp.

CLARK, R. J. H. (Editor) 1987. *Nuclear Chemistry* by A. Vertés and I. Kiss (Amsterdam: Elsevier). 619 pp.

CLARK, R. J. H., CROUD, V. B. 1986. Excitation line dependence of the symmetric chain-stretching mode of linear-chain, mixed-valence palladium complexes. *J. Phys. C.*, vol. 19, 3467-3474.

CLARK, R. J. H., CROUD, V. B. (with Conradson, S. D. Dallinger, R. F., Swanson, B. I.) 1987. Resonance Raman study of the ν_1 band structure of $[Pt(en)_2]$ $[Pt(en)_2Br_2]$ $(ClO_4)_4$. *Chem. Phys. Letters*, vol. 135, 463-467.

CLARK, R. J. H., HEMPLEMAN, A. J. (with Flint, C. D.) 1986. Ligand deuteration as a means of differentiating between metal-metal and ligand-sensitive vibrations of dimetal-tetraacetates. In *Raman Spectroscopy*, Section 13, 25-26. W. L. Peticolas and B. Hudson (editors). (Eugene: Oregon University Press).

CLARK, R. J. H., HEMPLEMAN, A. J. (with Flint, C. D.) 1987. F.t.i.r. and Raman spectra of triphenylphosphine, triphenylarsine, triphenylstibine, and dibenzylsulphide. *Spectrochim. Acta*, vol. 43A, 805-816

CLARK, R. J. H., JOSS, S., ZVAGULIS, MARUTA (with Garner, C. D., Nicholson, J. R.) 1986. Raman, resonance Raman, and infrared spectroscopic study of complexes containing copper(I)-tetrathio-molybdate(VI) and -tungstate(VI) anions. *J. chem. Soc. Dalton*, 1595-1601.

CLARK, R. J. H., JOSS, S. (with Taylor, M. J.) 1986. Vibrational spectra of tropylium tetrahaloborates $[C_7H_7][BX_4]$ (X = Cl, Br or I). *Spectrochim. Acta*, vol. 42A, 927-928.

CLARK, R. J. H., WALTON, JACQUELINE R. 1987. Raman and resonance-Raman studies of platinum group tetrathiomolybdates and tetrathiotungstates. *J. chem. Soc. Dalton*, 1535-1544.

CLARK, R. J. H., WALTON, JACQUELINE R. 1987. Vibrational study study of dithioacetate complexes of nickel, palladium, and platinum. *Inorg. chim. Acta*, vol. 129, 163-171.

CLARK, R. J. H. (with Armstrong, R. S., Aroney, M. J.) 1987. Bond polarizability anisotropy: resolution of the sign ambiguity. *J. Raman Spectroscopy,* vol. 18, 141-143.

CLARK, R. J. H. (with Hester, R. E.) (Editors.) 1986. *Advances in Spectroscopy,* vol. 13: *Spectroscopy of Biological Systems.* (Chichester: Wiley). xxi + 547 pp.

COOKSEY, C. J. (with Brown, T. M.) 1987. Cobaloximes. *Education in Chem.*, vol. 24, 77-80.

COPE, P., MILLEN, D. J., WILLOUGHBY, L. C. (with Legon, A. C.) 1986. Internal dynamics and HF bond lengthening in the hydrogen-bonded heterodimer $CH_3CN\cdots HF$ determined from nuclear hyperfine structure in its rotational spectrum. *J. chem. Soc. Faraday Trans. II,* vol. 82, 1197-1206.

COPE, P., MILLEN, D. J., (with Legon, A. C.) 1986. Internal dynamics of subunits and bending force constants in weakly bound dimers. *J. chem. Soc. Faraday Trans. II,* vol. 82, 1189-1196.

COURTNEIDGE, J. L., DAVIES, A. G. 1987. Hydrocarbon radical cations. *Acc. chem. Res.*, vol. 20, 90-97.

COURTNEIDGE, J. L., DAVIES, A. G., GREGORY, P. S. 1986. The electron spin resonance spectra of dialkyl- and diaryl-diacetylene radical cations. *J. chem. Soc. chem. Comm.*, 1273-1275.

CRICH, D., FORTT, S. M. 1987. A new method for the synthesis of *tert*-alkyl chlorides from *tert*-alcohols. *Synthesis,* 35-37.

CRICH, D., FORTT, S. M. 1987. On the effect of ring size in the cyclization of carbonyl and vinyl radicals on to alkenes. *Tetrahedron Letters,* vol. 28, 2895-2898.

CRICH, D. (with Barton, D. H. R.) 1986. The invention of new radical chain reactions. Part 11. A new method for the generation of tertiary radicals from tertiary alcohols. *J. chem. Soc. Perkin I,* 1603-1611.

CRICH, D. (with Barton, D. H. R.) 1986. The invention of new radical chain reactions. Part 12. Improved methods for the addition of carbon radicals to substituted allylic groups. *J. chem. Soc. Perkin I,* 1613-1619.

CRICH, D. (with Barton, D. H. R., Boivin, J., Hill, C.H.) 1986. Functionalisation of saturated hydrocarbons. Part 7. On the mechanism of the degradation of the cholesterol side-chain to 20-ketone by oxidation with the Gif system. *J. chem. Soc. Perkin I,* 1805-1808.

DAVIES, A. G., GODDARD, J. P. (with Hursthouse, M. B., Walker, N. P. C.) 1986. Tributyltin(IV) penta(methoxycarbonyl)cyclopentadienides $[SnBu_3L_2]^+[C_5(CO_2Me)_5]^-$. X-ray crystal structure of the diaquatributyltin(IV) salt, $[SnBu_3(OH_2)_2][C_5(CO_2Me)_5]$, and electron spin resonance spectrum of the radical $C_5(CO_2Me)_5$. *J. chem. Soc. Dalton,* 1873-1877.

DAVIES, A. G., HAY-MOTHERWELL, ROBYN S. (with Evans, J. C., Rowlands, C. C.) 1986. The one-electron oxidation of 1,4-dimethylcyclohexa-1,3-diene, *J. chem. Soc. chem. Comm.*, 1513-1514.

DAVIES, A. G., JULIA, L., YAXDI, SAFIEH N. 1987. The electron spin resonance spectra of the radical cations of furans, thiophenes, and pyrroles in liquid solution. *J. chem. Soc. chem. Comm.*, 929-930.

DAVIES, A. G., NEVILLE, A. G. 1987. E.s.r. spectrsocopic observation of the radical anion of di-t-butylsilanone, $Bu^t_2SiO^{\cdot -}$. A new approach to the study of silanones. *J. chem. Soc. chem. Comm.*, 16-17.

DAVIES, A. G., SLATER, S. D. 1986. Structural studies of organotin compounds. *Silicon, Germanium, Tin, and Lead Compounds,* vol. 9, 87-98.

DAVIES, A. G., SLATER, S. D. (with Bates, P. A., Hursthouse, M. B.) 1987. The structure of 2,2-dialkyl-1,3,2-oxathiastannolanes. *J. organomet. Chem.*, vol. 325, 129-139.

DEEMING, A. J. 1986. Triosmium clusters. *Adv. organomet. Chem.*, vol. 26, 1-96.

DEEMING, A. J. 1986. Rearrangements, intramolecular exchanges, and isomerizations of organometallic compounds. In *Mechanisms of Organometallic Reactions*, vol. 4, 377-510. M. V. Twigg (editor). (New York: Plenum Press).

DEEMING, A. J., DONOVAN-MTUNZI, SUSAN, KABIR, S. E., ARCE, A. J., DE SANCTIS, YSAURA. 1987. Triosmium clusters containing the ligands CNH_2, NCHCN, and NCMeCN derived from cyanide ion, cyanogen, and acetonitrile. *J. chem. Soc. Dalton*, 1457-1461.

DEEMING, A. J., FELIX, M. S. B. (with Bates, P. A., Hursthouse, M. B.) 1987. Oxidative addition of 1,3-diynes at triosmium clusters with cleavage of the central carbon-carbon bond: X-ray crystal structure of $Os_3(\mu_3,\eta^2\text{-}C_2Ph)(\mu\text{-}C_2Ph)(CO)_9$ derived from 1,4-diphenylbuta-1,3-diyne. *J. chem. Soc. chem. Comm.*, 461-463.

DEEMING, A. J., FUCHITA, Y., HARDCASTLE, K. (with Hendrick, Kim, McPartlin, Mary). 1986. Reversible carbon-nitrogen bond formation in the isomerisation of triosmium compounds derived from t-butyldiazomethane (Bu^tCHN_2); the X-ray crystal structure of $[Os_3H_2(Bu^tCH{=}NNCO)(CO)_8(PMe_2Ph)]$. *J. chem. Soc. Dalton*, 2259-2264.

DEEMING, A. J., KABIR, S. E., POWELL, N. I. (with Bates, P. A., Hursthouse, M. B. 1987. Intermediates in the conversion of $[Os_3(CO)_{11}(PRPh_2)]$ (R = Me or Ph) into $[Os_3(\mu_3\text{-}C_6H_4)(\mu_3\text{-}PR)(CO)_9]$: crystal and molecular structures of $[Os_3(\mu\text{-}H)(\mu_3\text{-}C_6H_4PMePh\text{-}o)(CO)_9]$ and $[Os_3(\mu_3\text{-}C_6H_4PMe\text{-}o)(CO)_{10}]$. *J. chem. Soc. Dalton*, 1529-1534.

DEEMING, A. J., PROUD, G. P. (with Dawes, Helen M., Hursthouse, M. B.) 1986. Structure and fluxional behaviour of some aqua-complexes of rhodium(III) and iridium(III). *J. chem. Soc. Dalton*, 2545-2549.

DERENNE, SYLVIE, JOHNSON, M. D. (with Gaudemer, A.) 1987. The stereochemistry of forward and reverse reactions in the addition of hydridocobaloxime to (*E*)-1-phenylpropene. *J. organomet. Chem.*, vol. 322, 229-238.

DERENNE, SYLVIE, JOHNSON, M. D. (with Gaudemer, A.) 1987. Kinetics and mechanism of decomposition of phenylpropylbis(dimethylglyoximato)pyridinecobalt(III) in aqueous sulphuric acid. *J. organomet. Chem.*, vol. 322, 239-248.

EWING, M. B., JOHNSON, K. A., McGLASHAN, M. L. 1986. The liquid-liquid critical state of (cyclohexane + methanol). II. Use of the parametric equation of state to represent excess enthalpies in the critical region. *J. chem. Thermodynamics*, vol. 18, 979-992.

EWING, M. B., GOODWIN, A. R. H., McGLASHAN, M. L., TRUSLER, J. P. M. 1987. Thermophysical properties of alkanes from speeds of sound determined using a spherical resonator. I. Apparatus, acoustic model, and results for dimethylpropane. *J. chem. Thermodynamics*, vol. 19, 721-739.

EWING, M. B., McGLASHAN, M. L., TRUSLER, J. P. M. 1987. Intermolecular forces from the speed of sound. I. Theory. *Mol. Phys.*, vol. 60, 681-690.

GANELLIN, C. R. 1987. Icotidine trihydrochloride. *Drugs of the Future*, vol. 12, 24-26.

GANELLIN, C. R., TERTIUK, W. (and others) 1986. *N*-methyldimaprit (SK&F92054). A chemical control for the histamine H_2-receptor agonist dimaprit. *Agents and Actions*, vol. 19, 18-25.

GANELLIN, C. R., TERTIUK, W. (and others) 1987. Iodobolpyramine and other iodinated derivatives as ligands for detecting histamine H_1 receptors. *Eur. J. med. Chem.*, vol. 22, 91-100.

GANELLIN, C. R. (and others) 1987. Evidence for low brain penetration by the H_1-receptor antagonist temelastine (SK&F93944). *Eur. J. Pharmacol.*, vol. 133, 65-74.

GARRATT, P. J. 1987. Benzene and brethren, the enigmatic molecules - 1825-1986. *Endeavour*, New Series, vol. 11, 36-42.

GARRATT, P. J., HOBBS, C. J., WRIGGLESWORTH, R. (with Walpole, C. S. J.) 1987. A novel synthesis of dihydropyrimidines. *J. chem. Soc. chem. Comm.*, 568-569.

GARRATT, P. J., PIELKE, MARTINA, PORTER, J. R. 1987. A short, efficient synthesis of (±)valerane. *Tetrahedron Letters*, vol. 28, 589-592.

GARRATT, P. J., PORTER, J. R. 1986. Dilithiated vicinal diester route to sesquiterpenes. Total synthesis of (±)-vetiselinene and the formal synthesis of other eudesmane sesquiterpenes. *J. org. Chem.*, vol. 51, 5450-5452.

GARRATT, P. J., PORTER, J. R. 1987. A convenient synthesis of dialkyl bicyclo[*n*.1.0]alkane-1,*n*+2-dicarboxylates. *J. chem. Res. (S)*, 108-109.

GARRATT, P. J., PORTER, J. R. 1987. Reaction of dilithiated 1,2-diesters with β-bromoethyloxirane. Synthesis of annelated γ-lactones. *Tetrahedron Letters*, vol. 28, 351-352.

GARRATT, P. J. (with Mellor, J. M.) 1986. Introduction. *Ann. Reports (B)*, vol. 82, 1-2.

GHIASSEE, N. B. 1986. Vapour-pressure equations for solid and liquid UF_6. *J. nucl. Mat.*, vol. 139, 284-286.

GISBY, J. A., WALMSLEY, S. H. 1987. A model of the effects of pressure on the near ultraviolet absorption spectrum of crystalline naphthalene. *Chem. Phys. Letters*, vol. 135, 275-278.

GREEN, I. G., ROBERTS, B. P. 1986. Homolytic reactions of ligated boranes. Part 3. Electron spin resonance studies of radicals derived from dialkylamine-boranes. *J. chem. Soc. Perkin II*, 1597-1606.

HEMPLEMAN, A. J., CLARK, R. J. H. (with Flint, C. D.) 1986. Differentiation between metal-metal stretching and ligand-sensitive vibrations in dimetal tetraacetates by ligand deuteration. *Inorg. Chem.*, vol. 25, 2915-2916.

HUDSON, R. L., ROBERTS, B. P. 1986. The bis(trimethylamine)-alanyl radical, $(Me_3N)_2AlH_2$. *J. chem. Soc. chem. Comm.*, 1194-1195.

LAU, H. Y. A., PEARCE, F. L. 1986. Effects of antihistamines on isolated mast cells from the rat, guinea pig, and man. *Agents and Actions*, vol. 18, 107-109.

LEUNGE, K. P. B., PEARCE, F. L. (and others) 1986. Some properties of mast cells obtained by human bronchoalveolar lavage. *Agents and Actions*, vol. 18, 110-112.

LEUNG, K. B. P., PEARCE, F. L. (and others) 1987. Some further properties of human pulmonary mast cells recovered by bronchoalveolar lavage and enzymic dispersion of lung tissue. *Agents and Actions*, vol. 20, 213-215.

LEUNG, K. B. P., PEARCE, F. L. (and others) 1986. A comparison of nedocromil sodium and sodium cromoglycate on human lung mast cells obtained by bronchoalveolar lavage and by dispersion of lung fragments. *Eur. J. respir. Dis.*, vol. 69, (suppl. 147), 223-226.

LEUNG, K. B. P., PEARCE, F. L. (with Sanderson, I. R., Walker-Smith, J. A.) 1986. Lamina propria mast cells in biopsies from children with Crohn's disease. *J. clin. Pathol.*, vol. 39, 279-283.

MACCOLL, A. 1986. Low energy, low temperature mass spectra. 6 - A synoptic view. *Org. Mass Spectrom.*, vol. 21, 601-611.

MARTI, V. P. J., ROBERTS, B. P. 1986. Homolytic reactions of ligated boranes. Part 5. Spin-trapping and other addition reactions of ligated boryl radicals. *J. chem. Soc. Perkin II,* 1613-1621.

McCARTHY, HOLLY J., TOCHER, D. A. 1987. Cyclic voltammetric studies into the reduction of a series of tris(1,3-diketonato)iron(III) compounds in dichloromethane and dimethylsulphoxide. *Polyhedron,* vol. 6, 1421-1425.

MILLEN, D. J., NORTH, HAZEL M. (with Kisiel, Z., Legon, A. C.) 1986. Evaluation of Coriolis coupling constants for HCN···HF and their use in the estimation of ν_β. *Chem. Phys. Letters,* vol. 129, 489-492.

MILLEN, D. J., NORTH, HAZEL M. (with Legon, A. C.) 1987. Experimental determination of the dissociation energies D_0 and D_e of H_2O···HF. *Chem. Phys. Letters,* vol. 135, 303-306.

MILLEN, D. J., NORTH, HAZEL M. (with Legon, A. C.) 1987. Dissociation energies of the hydrogen-bonded dimers RCN···HF (R = CH_3, HCC) determined by rotational spectroscopy. *J. chem. Phys.*, vol., 85, 2530-2535.

MILLEN, D. J. (with Goodwin, Elizabeth J., Legon, A. C.) 1986. The rotational spectrum and geometry of the heterodimer oxirane···hydrogen cyanide in the vibrational ground state and the $\nu_{\beta(\nu)} = 1$ state. *J. chem. Phys.*, vol. 85, 676-682.

MILLEN, D. J. (with Legon, A. C.) 1987. Directional character, strength, and nature of the hydrogen bond in gas-phase dimers. *Acc. chem. Res.*, vol. 20, 39-46.

MILLEN, D .J. (with Legon, A. C.) 1987. Hydrogen bonding as a probe of electron densities: limiting gas-phase nucleophilicities and electrophilicities of B and HX. *J. Amer. chem. Soc.*, vol. 109, 356-368.

MILLER, S., CHOTHIA, C. (with Lesk, A. M., Janin, J.) 1987. Interior and surface of momomeric proteins. *J. Mol. Biol.*, vol. 196, 641-656.

PEARCE, F. L. 1986. Functional differences between mast cells from various locations. In *Mast cell differentiation and heterogeneity,* 215-222. A. D. Befus, J. Bienenstock, and J. A. Denburg (editors). (New York: Raven Press).

PEARCE, F. L., LEUNG, K. B. P. (and others) 1987. Human pulmonary mast cells obtained by bronchoalveolar lavage and from lung parenchyma. *Fedn. Proc.*, vol. 46, 936.

PEARCE, F. L., LEUNG, K. B. P. (and others) 1987. Some studies on human pulmonary mast cells obtained by bronchoalveolar lavage and by enzymic dissociation of whole lung tissue. *Int. Archs. Allergy appl. Immun.*, vol. 82, 507-512.

PEARCE, F. L. (with Befus, D., Bienenstock, J.) 1987. Intestinal mast cells in pathology and host resistance. In *Food allergy and intolerance,* 88-102. J. Brostoff and S. J. Challacombe (editors). (London: Baillière Tindall).

RYDE, KIM, TOCHER, D. A. 1986. The electro-oxidation of the binuclear ruthenium(II/III) tetra-amidate complex, $Ru_2(Me_2CCONH)_4Cl$. *Inorg. chim. Acta,* vol. 118, L49-51.

SCHACHTER, M. (and others) 1986. Immunocytochemical and enzyme histochemical localization of kallikrein-like enzymes in colon, intestine, and stomach of rat and cat. *J. Histochem. Cytochem.*, vol. 34, 927-934.

SCHACHTER, M. (and others) 1986. The varied localization and functional significance of kallikrein-like enzymes in salivary glands, pancreas, colon, sex glands and spermatozoa, including evidence for the presence of nerve growth factor (NGF) in bull sperm acrosome. *Kinins IV, Advances in experimental Medicine and Biology,* vol. 198A, 1-11. L. M. Greenbaum and H. S. Margolius (editors). (New York: Plenum Press).

SCHACHTER, M. (with Fujimori, H., Levison, P. R.) 1986. Purification and partial characterization of cat colon and submandibular gland kallikreins. *Kinins IV, Advances in experimental Medicine and Biology,* vol. 198A, 211-218. L. M. Greenbaum and H. S. Margolius (editors). (New York: Plenum Press).

SCHACHTER, M. (with Fujimori, H., Levison, P. R.) 1986. Purification and partial characterization of cat pancreatic and urinary kallikreins - comparison with other cat tissue kallikreins and related proteases. *Ibid.*, 219-229.

STIDDARD, M. H. B. 1987. An electroanalytical study of chemiplated thin films of copper suphide. *J. Mater. Sci.*, vol. 22, 1347-1351.

THIRUNAMACHANDRAN, T. (with Craig, D. P.) 1987. Chiral-achiral molecular coupling: the effect on the chiral partner. *Internat. J. quantum Chem.*, vol. XXXI, 317-424.

THIRUNAMACHANDRAN, T. (with Craig, D. P.) 1987. Change in chiroptical properties caused by intermolecular coupling. *Proc. roy. Soc. London A,* vol. 410, 337-351.

THOMPSON, HELEN L., LEOUTSAKOS, AGNES, PEARCE, F. L. 1987. On the mechanism of dextran-induced histamine secretion from rat peritoneal mast cells. *Agents and Actions,* vol. 20, 169-171.

TOBE, M. L. (and others) 1986. A comparison of the nucleophilicity of sulfoxides towards tetrachloroplatinate(II) and tetrabromoplatinate(II) anions. *J. coord. Chem.*, vol. 15, 153-159.

TOBE, M. L. (and others) 1987. Dissociative substitution in four-coordinate planar platinum(II) complexes. 2. Crystal structure of cis-diphenylbis(dimethyl sulfide) platinum(II) and kinetics of thioether displacement by bidentate ligands in benzene. *Inorg. Chem.*, vol. 26, 185-190.

TOCHER, D. A., TOCHER, JOANNE H. 1986. Synthesis and characterization of $Rh_2[Ph(2\text{-}pyr)N]_4$: a precursor ot a dirhodium(III) dication containing and Rh—^{2}—Rh Bond. *Polyhedron,* vol. 5, 1615-1620.

TRUTER, MARY R. (with Benetollo, F., Bombieri, G.) 1987. Crystal structures of 1:1 complexes between urea and two crown ether derivatives of phthalic acid. *J. Inclusion Phenomena,* vol. 5, 165-168.

WALMSLEY, S. H. 1987. Intermolecular potential functions and the properties of molecular crystals: carbonyl sulphide as a model system. In *Dynamics of molecular crystals,* 33-39. J. Lascombe (editor). (Amsterdam: Elsevier).

WILLIAMS, G. (with Clayden, N. J., Moore, G. R.) 1987. Metal-porphyrin-induced nmr dipolar shifts and their use in conformational analysis. In *Metal ions in biological systems,* vol. 21: *Applications of nuclear magnetic resonance to paramagnetic species,* 187-227. H. Sigel and A. Sigel (editors). (New York: Marcel Dekker Inc).

WILLIAMS, G. 1986. Proton NMR studies of two helices in Tuna ferricytochrome *c*. *J. inorg. Biochem.*, vol. 28, 373-380.

COMPUTER SCIENCE

CAMPBELL, J. A. 1986. Knowledge-based computing systems and software engineering. *Computer Physics Communications,* vol. 41, 285-290.

CAMPBELL, J. A. 1987. Perspektívy pocítacove. *Československý Casopis pro Fyziku,* vol. A 37, 75-78.

CAMPBELL, J. A. 1987. Qualitative reasoning. *Indian J. of Physics,* vol. 61 B, 277-285.

CLACK, C. D., PEYTON JONES, S. L. 1986. The four-stroke reduction engine. In *Proc. ACM Conference on Lisp and Functional Programming, Boston, August 1986,* 220-232.

COLE, R. June 1987. A method for interconnecting heterogeneous computer networks. *Software - Practice and Experience,* vol. 17, 387-397.

KERAVNOU, E. T. (with Johnson, L.) 1986. Competent expert systems. *Int. J. Systems Research and Info. Science,* vol. 2, 45-56.

KILLE, S. E. August 1986. Gatewaying between X.400 and other message protocols. In *Online Conference on Electronic Messaging Systems,* 239-248. (London: ONLINE).

KILLE, S. E. August 1986. THORN (The Obviously Required Namesaver). *IES News,* no. 5, 11-14.

KIRSTEIN, P. T., KNIGHT, G. J. 1987. Planning for the INCA demonstrator. In *Proc. ESPRIT '86 - Results and Achievements,* 717-726. (Amsterdam: North-Holland).

KNIGHT, G. J., KIRSTEIN, P. T. 1987. Project INCA - an OSI approach to office communications. In *Proc. Conference on Open Systems,* 245-254. (London: ONLINE).

KNIGHT, G. J., DENIZ, D., FAN, J. 1987. Gateways to the ISDN. In *Proc. Conference on ISDN, June 1987,* 141-152. (London: ONLINE).

LEE, M. K. O. 1986. A packet-based demand/data driven reduction model for the parallel execution of logic programs. In *Conference on Algorithms and Hardware for Parallel Processing, Aachen, September 17-19 1986, (LNCS 237),* 214-221. Wolfgang Handler et al., (editor), (New York-Heidelberg-Berlin: Springer-Verlag).

MA, Z., TUCK, B. 1986. Multimedia document systems over wideband networks. In *Online Conference on Electronic Messaging Systems, August 1986,* 271-283. (London: ONLINE).

MATTHEWSON, P. W., WILBUR, S. R. 1987. An integrated services switching system based upon a single buffered banyan network. In *IEEE INFOCOM '87 San Francisco March 31st - April 2nd 1987,* 766-772. (Washington, D.C.: IEEE Computer Society).

MERABTI, M. (with Hutchinson, D.) 1987. Ethernet for Real-Time Applications. *IEEE Proceedings-E,* vol. 134, 47-53.

PEYTON JONES, S. L. 1987. *The Implementation of Functional Programming Languages.* (Englewood Cliffs, NJ: Prentice-Hall). 450 pp.

PEYTON JONES, S. L. 1986. An introduction to fully-lazy supercombinators. In *Combinators and Functional Languages, (LNCS 242),* 176-208. G. Cousineau, P-L. Curien and B. Robinet, (editors), (New York-Heidelberg-Berlin: Springer-Verlag).

PEYTON JONES, S. L. 1986. Functional programming languages as a software engineering tool. In *Software Engineering - the Decade of Change,* 124-151. D. H. Ince, (editor), (Hitchin: Peter Peregrinus).

PEYTON JONES, S. L., CLACK, C. D., SALKILD, J., HARDIE, M. 1987. GRIP - a parallel graph reduction machine. *ICL Technical J.,* vol. 5, 595-599.

POWER, J., WILBUR, S. R. March 1987. Authentication in a heterogeneous environment. *Computers and Security,* vol. 6, 41-48.

TRELEAVEN, P. C. (with de Bakker, J. W., Nijman, A. J.) 1987. *PARLE Parallel Architectures and Languages Europe (LNCS 258 and 259).* (New York-Heidelberg-Berlin: Springer-Verlag). 479 and 463 pp.

TRELEAVEN, P. C. 1986. Future Parallel Computers. In *COMPAR 86 Conference on Algorithms and Hardware for Parallel Processing, September 1986,* 40-47. W. Handler, D. Haupt, R. Jeltsch, W. Juling, O. Lange, (editors), (New-York-Heidelberg-Berlin: Springer-Verlag).

WILBUR, S. R. 1986. Local area networks. In *Local Telecommunications 2*, 163-177. J. M. Griffiths, (editor), (Hitchin: Peter Peregrinus).

WILBUR, S. R. 1986. Local area networks. In *Data Communications and Networks*, 110-125. R. L. Brewster, (editor), (Hitchin: Peter Peregrinus).

WILKINSON, G. G. 1987. The Search Problem in Automated Map Design. *The Cartographic J.*, vol. 24, 53-56.

WILKINSON, G. G. (with Fisher, P. F.) 1987. Recent development and future trends in Geo-Information Systems. *The Cartographic J.*, vol. 24, 64-70.

WILKINSON, G. G. (with Mackaness, W. A., Fisher, P. F.) 1986. Towards a cartographic expert system. In *Auto Carto London, 14-19 September 1986*, 578-587. M. Blakemore, (editor), (London: International Cartographic Association).

WILKINSON, G. G. (with Peacegood, G., Fisher, P. F.)1986. Knowledge base requirements for automated mapping from high resolution stallellite imagery. In *Mapping from Modern Imagery, Edinburgh, 8-12 September 1986*, 661-667. (Nottingham: Remote Sensing Society).

WILKINSON, G G. (with Winterflood, A. R.) (editors). 1987. *Fundamentals of Information Technology.* (Chichester: John Wiley). 363 pp.

WILKINSON, G. G. (and others) 1986. Intelligent knowledge-based techniques and IGIS design. In *A Study on Integrated Geo-Information Systems*, 7-1 - 7-15. F. Arnold, M. J. Jackson, M. Ranzinger, (editors), (Paris: European Association of Remote Sensing Laoratories).

WINDER, R. L., EASTEAL, C. D., COLE, R. H. July 1987. Software engineering in a first degree. *Software Engineering J.*, vol. 2, 133-139.

GENETICS AND BIOMETRY

BARTON, N. H. (with Curtis, C. F., Curtis, J.) 1986. Methodology for testing the hypothesis of single locus control of host resistance. *Proc. II. Int. Symp. on genetic control of host resistance to infection and malignancy. Montreal, Canada.*

BARTON, N. H. 1986. The effects of linkage and density-dependent regulation on gene flow. *Heredity,* vol. 57, 415-426.

BARTON, N. H. 1986. The maintenance of polygenic variation through a balance between mutation and stabilizing selection. *Genetical Research,* vol. 47, 209-216.

BARTON, N. H. (with Bengtsson, B. O.) 1986. The barrier to genetic exchange between hybridising populations. *Heredity,* vol. 56, 357-376.

BARTON, N. H. (with Szymura, J. M.) 1986. Genetic analysis of a hybrid zone between the fire-bellied toad, *Bombina bombina,* and the yellow-bellied toad, *Bombina variegata. Evolution,* vol. 40, 1141-1159.

BARTON, N. H. (with Turelli, M.) 1987. Adaptive landscapes, genetic distance, and the evolution of quantitative characters. *Genetical Research,* vol. 49, 157-174.

BARTON, N. H. (with Westerman, M., Hewitt, G. M.) 1987. Differences in DNA content between two chromosomal races of the grasshopper *Podisma pedestris? Heredity.*

BARTON, N. H., ROUHANI, S. 1987. The frequency of shifts between alternative equilibria. *J. Theor. Biol.*, vol. 125, 397-418.

CARRITT, B. 1986. Restriction fragment length polymorphisms in the D7S1 region of human chromosome 7. *Hum. Genet.*, vol. 72, 83-85.

CARRITT, B., POVEY, S. (with Wilson, D. E., Del Pizzo, R.) 1986. Assignment of the human gene for β-glycerol phosphatase to chromosome 8. *Ann. Hum. Genet.*, vol. 50, 217-221.

CARRITT, B., WELCH, H. M., PARRY-JONES, N. J. 1986. Sequences homologous to the human D1S1 lucus present on human chromosome 3. *Am. J. Genet.*, vol.38, 428-436.

COOKE, H. M. G., PENKETH, R. J. A., DELHANTY, J. D. A. 1986. An evaluation of maternal cell contamination in cultures of chorionic villi for the prenatal diagnosis of chromosome abnormalities. *Clinical Genetics*, vol. 30, 485-493.

CORNEY, G., HOPKINSON, D. A. (and others). 1986. Two genetic markers closely linked to adult polycystic kidney disease on chromosome 16. *Brit. Med. J.*, vol. 292, 851-853.

CORNEY, G., WHITEHOUSE, D. B., HOPKINSON, D. A. (and others). 1987. Prenatal diagnosis of alpha-1-antitrypsin deficiency by fetal blood sampling. *Prenatal Diagnosis*, vol. 7, 101-108.

COWIE, R. H. 1986. Homology. In *Animal Evolution and the Prehistoric World*, 82-83. A. Hallam and R. J. Berry (editors). (London: Collins).

COWIE, R. H. 1986. Reduction of the distribution of the land snail *Theba pisana* in Dyfed. *Nature in Wales*, vol. 4, 66-70.

DAVIS, M. B. 1987. Linkage between the loci for peptidase D and cytochrome P-450 (CYP1) on chromosome 19. *Ann. Hum. Genet.*, vol. 51, 9-12.

EDWARDS, Y. H. (and others). 1986. Myoglobin expression: Early induction and subsequent modulation of myoglobin and myoglobin mRNA during myogenesis. *Mol. and Cell Biol.*, vol. 6, 4539-4547.

EDWARDS, Y. H., LLOYD, J., PARKAR, M., POVEY, S. 1986. The gene for human muscle specific carbonic anhydrase (CAIII) is assigned tochromosome 8. *Ann. Hum. Genet.*, vol. 50, 41-47.

EDWARDS, Y. H., POVEY, S. (with Barlow, J. H., Konialis, C. P., Butterworth, P. H. W.) 1986. Assignment of the gene determining human carbonic anhydrase, CAI, to chromosome 8. *Ann. Hum. Genet.*, vol. 50, 123-129.

HOPKINSON, D. A. 1986. Current research on enzyme polymorphism. In *Advances in Forensic Haemogenetics 1*. Ch. II: Proteins and Enzymes, 50-59. B. Brinkmann and K. Henningsen (editors). (Berlin-Heidelberg: Springer-Verlag).

HOPKINSON, D. A. (and others). 1986. Chlorpropamide-alcohol flush reaction and isoenzyme profiles of alcohol dehydrogenase and aldehyde dehydrogenase. *Clin. Sci.*, vol. 71, 513-517.

JONES, J. S. 1986. The origin of Homo sapians: the genetic evidence. In *Major Topics in Primate and Human Evolution*, 317-330. B. Wood, L. Martin, and P. Andrews (editors). (Cambridge: Cambridge University Press).

JONES, J. S. 1987. An asymmetrical view of fitness. *Nature*, vol. 325, 298-299.

JONES, J. S. (and others). 1987. Large scale patterns of genetic differentiation at enzyme loci in the land snails *Cepaea nemoralis* and *Cepaea hortensis*. *Heredity*, vol. 58, 127-138.

JONES, J. S. (and others). 1987. Realised niche of *Drosophila melanogaster* in nature measured using a temperature sensitive mutation. *American Naturalist*, vol. 121, 547-556.

JONES, J. S. (and others). 1987. Male size and mating success in *Drosophila malanogaster* and *Drosophila pseudoobscura* under field conditions. *Animal Behaviour*, vol. 35, 468-476.

JONES, J. S. 1987. The heritability of fitness: bad news for good genes? *Trends in Research on Ecology and Evolutiion*, vol. 2, 35-38.

KALMUS, H. 1986. The evolution of trichromatic vision in primates. In *Proc. VIIIth. Conference of the International Research Group, Defective Colour Vision, Avignon, 1985,* 505-510. (Dordrecht: Junk).

KALMUS, H. 1986. Decline of contrast perception with age. *Ibid,* 117-120.

KALMUS, H. 1987. Statistics - a child eugenics? *Biology and Philosphy,* vol. 2, 107-115.

LLOYD, J., McMILLAN, S., HOPKINSON, D., EDWARDS, Y. H. 1986. Nucleotide sequence and derived amino acid sequence of a cDNA encoding human muscle carbonic anhydrase. *Gene,* vol. 41, 233-239.

LLOYD, J., EDWARDS, Y. (and others). 1986. Induction of rat muscle carbonic anhydrase III by denervation, measured by radioimmunoassay and a cDNA probe. *Biochem. Soc. Trans.,* vol. 14, 1254-1255.

LUCAS, M. K. (with Knott, P. D., Ward, R. H. T.) 1986. Effect of chorionic villus sampling and early pregnancy counselling on uptake of prenatal diagnosis. *Brit. Med. J.,* vol. 293, 471-474.

LUSH, I. E. (with Woodman, A.) 1986. How to use Get and Got. A manual for speakers of other languages. (London: Pimlico Press).

LUSH, I. E. 1986. The genetics of tasting in mice IV. The acetates of raffinose, galactose and β-lactose. *Genetical Research,* vol. 47, 117-123.

LUSH, I. E. 1986. Differences between mouse strains in their consumption of phenyltiourea (PTC). *Heredity,* vol. 57, 319-323.

LUSH, I. E. (with Azen, E. A., Taylor, B. A.) 1986. Close linkage of mouse genes for salivary proline-rich proteins (PRPs) and taste. *Trends in Genetics, August '86,* 199-200.

MALLET, J. 1986. Hybrid zones of *Heliconius* butterflies in Panama and the stability and movement of warning colour clines. *Heredity,* vol. 56, 191-202.

MALLET, J. 1986. Dispersal and gene flow in a butterfly with home range behaviour: *Heliconius erato* (Lepidoptera: Nymphalidae). *Oecologia,* vol. 68, 210-217.

MALLET, J. 1986. Gregarious roosting and home range in *Heliconius* butterflies. *National Geographic Research,* vol. 2, 198-215.

MALLET, J. (with Singer, M. C.) 1986. Moss-feeding by a satyrine butterfly. *J. Res. Lepid.,* vol. 24,392.

MITTWOCH, U. 1986. Testis size and hermaphroditism. *Nature,* vol. 323, 117-118.

PENKETH, R. J. A., LUCAS, M. K. (with Knott, P. D.) 1986. Uptake of amniocentesis in women aged 38 years or more by the time of the expected date of delivery: a two-year retrospective study. *Brit. J. of Obstetrics and Gynaecology,* vol. 93.

POVEY, S., PARRINGTON, J. M. 1986. Chromosome 1 in relation to human disease. *J. Med. Genet.,* vol.23, 107-115.

POVEY, S., WEST, L. (with others). 1986. Duchenne muscular dystrophy in one of monozygotic twin girls. *J. Med. Genet.,* vol. 23, 494-500.

RIDER, S. H., MAZZULLO, H. A., DAVIS, M. B., DELHANTY, J. D. A. 1986. Familial polyposis coli: growth characteristics of karyotypically variable cultured fibroblasts, response to epidermal growth factor and the tumour promoter 12-0-tetradecanoyl phorbol-13-acetate. *J. of Medical Genetics,* vol. 23, 131-144.

ROBSON, E. B., SMITH, C. A. B. (editors). *Annals of Human Genetics.* (Cambridge University Press).

ROUHANI, S., BARTON, N. H. 1987. The probability of peak shifts in a founder population. *J. Theor. Biol.* vol. 126, 51-62.

SMITH, C. A. B. 1986. The development of human linkage analysis. *Ann. Hum. Genet.,* vol. 50, 293-311.

SMITH, C. A. B. 1987. The twenty-seven card trick. *Colson News,* vol. 3, 38.

SMITH, C. A. B. 1987. Our binary world. *Ibid.*, 52-63.

SMITH, C. A. B. (and others). 1987. Genetic heterogeneity of X-linked mental retardation with fragile X: association of tight linkage to factor IX and incomplete penetrance in males. *Ann. Hum. Genet.*, vol. 51, 107-124.

SWALLOW, D. M., GRIFFITHS, B., (with Bramwell, M., Wiseman, G., Burchell, J.) 1986. Detection of the urniary 'PUM' polymorphism by the tumour-binding monoclonal antibodies Cal, Ca2, Ca3, HMFG1 and HMFG2. *Disease Markers,* vol. 4, 247-254.

SWALLOW, D. M., HOPKINSON, D. A. 1986. Human biochemical genetics of enzyme proteins in the new age of molecular genetics. *J. Inher. Metab. Dis.*, vol. 9 Suppl. 1, 17-31

SWALLOW, D. M., POVEY, S. (and others). 1986. Mapping of the gene coding from the human liver/bone/kidney isozyme of alkaline phosphatase to chromosome 1. *Ann. Hum. Genet.*, vol. 50, 229-235.

SWALLOW, D. M., POVEY, S. (with Wilson, D. E.). 1986. Assignment of the human gene for uridine 5'-monophosphate phosphohydrolase (UMPH2) to the long arm of chromosome 17. *Ibid.*, 223-227.

WHITEHOUSE, D. B., HOPKINSON, D. A. (and others). 1986. Adenosine deaminase activity in a series of 19 patients with the Diamond-Blackfan syndrome. In *Purine and Pyrimidine Metabolism in Man V. Vol. 195, Part A*; Clinical aspects including molecular genetics, 85-92. W. L. Nyhan, L. F. Thompson, R. W. E. Watts (editors). (New York and London: Plenum Press).

WHITEHOUSE, D. B., HOPKINSON, D. A. (and others). 1986. A population genetic survey of the haptoglobin polymorphism in Melanesians by DNA analysis. *Am. J. Hum. Genet.*, vol. 38, 382-389.

WOLFE, J. (and others). 1987. Localisation of Y chromosome sequences in normal and 'XX' males. *J. of Medical Genetics*, vol. 24, 197-203.

GEOLOGICAL SCIENCES

ATKINSON, B. K. (Editor). 1987. *Fracture Mechanics of Rock*. (London: Academic Press). 534 pp.

ATKINSON, B. K. 1987. Introduction to fracture mechanics and its geophysical applications. *Ibid.*, 1-26.

ATKINSON, B. K., MEREDITH, P. G. 1987. The theory of subcritical crack growth with applications to minerals and rocks. *Ibid.*, 111-166.

ATKINSON, B. K., MEREDITH, P. G. 1987. Experimental fracture mechanics data for rocks and minerals. *Ibid.*, 477-525.

AUDLEY-CHARLES, M. G. 1986. Timor-Tanimbar Trough: The foreland basin of the evolving Banda orogen. In: *Foreland Basins*. P. A. Allen and P. Homewood (editors). *Internat. Assoc. Sedimentologists Spec. Pub.*, No. 8, 91-102.

BANNER, F. T. (with Strank, A. R. E.) 1987. On *Wondersella athersuchi*, a new stratigraphically significant hedbergellid from the Cretaceous Shuaiba Formation of the Middle East. *J. Micropalaeontology*, vol. 6, 39-48.

BOU DAGHER, MARCELLE K. 1987. The Stainforthiidae (Foraminifera) in the Late Paleocene and Early Eocene of Tunisia. *Bulletin des Centres de Recherches Exploration-Production Elf-Aquitaine*, vol. 11, 133-152.

BOWN, P. R. 1987. The structural development of early Mesozoic coccoliths and its evolutionary and taxonomic significance. *Abhandlungen der Geologischen Bundesanstalt*, vol. 39, 33-49.

DOCKERILL, HILARY J. 1987. *Triscutum*, a distinctive new coccolith genus from the Jurassic. *Bulletin des Centres de Recherches Exploration-Production Elf-Aquitaine*, vol. 11. 127-131.

FARHAN, ANBA. 1987. Evolutionary trend of the genus *Lithastrinus* to the genus *Uniplanarius*. *Abhandlungen der Geologischen Bundesanstalt*, vol. 39, 57-65.

GREENSMITH, J. T. (with Tucker, E. V.). 1986. Compaction and Consolidation. In *Sea-Level Research*, Chapter 22, 591-603. O. van de Plaasche (editor). (Norwich: Geobooks).

JONES, E. J. W. (with Hughes, V. J., White, R. S.). 1985. Seismic velocity structure of the northwest Scottish continental margin: some constraints imposed by amplitude studies. *Annal. Geophys.*, vol. 2, 669-678.

JONES, E. J. W., PERRY, R. G. (with Mitchell, J. G.). 1986. Early Tertiary igneous activity west of the Outer Hebrides, Scotland - evidence from magnetic anomalies and dredged basaltic rocks. *Marine Geol.*, vol. 73, 47-59.

JONES, G. P. (with Engelen, G. B.) (Editors). 1986. *Developments in the analysis of groundwater flow systems*. (IAHS Pub. No. 163.) 356 pp.

JONES, G. P. 1987. Predictive requirements for optimum Ground Water Development. In *Proc. UNESCO/UNEP/USSR Internat. Workshop: Impact of Water Management Projects 1985, Tashkent, USSR*, 42-46.

JONES, M. E. (with Sorensen, S., Hardman, R. F. P., Schwarz, P.). 1986. Reservoir characteristics of high and low productivity chalk from the central North Sea. In *Habitats of Hydrocarbons*, 91-110. (Norwegian Petroleum Society: Graham and Trotman).

JONES, M. E., PRESTON, R. M. F. (Editors). 1987. *Deformation of Sediments and Sedimentary Rocks. Spec. Pub. Geol. Soc. Lond.*, No. 29, (Oxford: Blackwell Scientific Publications.) 350 pp.

JONES, M. E. 1987. Compaction of chalk reservoirs and related surface subsidence. *JAPEC Course Notes No. 54: Presented at Geol. Soc. London, 27-28 January 1987*, F3-F70.

KIRK, WENDY L. 1987. Geothermometry and geobarometry of the Furulund Group, Sulitjelma, Norway: Joint Meeting EUG IV/EGS XIII, Strasbourg, April 1987. *Terra Cognita*, vol. 7, 289.

LEDDRA, M. J., YASSIR, NAJWA, A., JONES, C., JONES, M. E. 1987. Anomalous compressional structures formed during diagenesis of a dolostone at Kimmeridge Bay, Dorset. *Proc. Geol. Assoc.*, vol. 98, 145-155.

LI QIANYU. 1986. Ultrastructure, morphology, affinities and reclassification of *Cassigerinella* Pokorny (Foraminiferida: Globigerinina). *J. Micropalaeontology*, vol. 5, 49-64.

LORD, A. R., SIESSER, W. G. (with Ward, D. J.) 1987. Calcareous nannoplankton biozonation of the Thanetian Stage (Palaeocene) in the type area. *J. Micropalaeontology*, vol. 6, 85-102.

MARTIN, A. J. 1987. Obituary for Sir Peter Kent, F.R.S. *Annual Report Geol. Soc. Lond.*

MASON, R. 1985. Meamorphism and melange. In *VI Colloquium on Geology of the Aegean Region, Izmir, Turkey, 1977*, 437-444. E. Izdar and E. Nakoman (editors). (Izmir: Dokuz Eylül University).

MASON, R. 1987. Discussion of 'P-T-t histories of orogenic belts' by A. B. Thompson and J. R. Ridley. In *Tectonic settings of regional metamorphism*, E. R. Oxburgh, B. W. D. Yardley and P. C. England (editors). *Phil. Trans. Roy. Soc. Lond., Series A*, vol. 321, 245.

MASON, R. 1987. Discussion of 'The metamorphism of the Dalradian rocks of western Ireland and its relation to tectonic setting' by B. W. D. Yardley, J. P. Barber and J. R. Gray. *Ibid.*, 269.

MASON, R. 1987. Thermal modelling of metamorphism by plate collision: a paradox. *Terra Cognita*, vol. 7, 285.

MENDELSSOHN, MONICA J., MILLEDGE, H. JUDITH (and others). 1986. Zoned diamonds: records of Mantle volatile activity. *Terra Cognita*, vol. 6, 45.

MEREDITH, P. G. (with Dennis, P. F.) (Editors). 1986. *Rock and Mineral Physics Register for the U.K. and Ireland.* (London: Mineralogical Society.) 36 pp.

MEREDITH, P. G. 1987. Acoustic emission monitoring of laboratory scale rock fracture experiments. In *Acoustic Emission for Investigation, Testing and Surveillance of Materials. Deutsche Gesellschaft fur Metallkunde, Oberursel.*

MEREDITH, P. G. (with Main, I. G.). 1987. A reinterpretation of the seismic b-value anomaly using fracture mechanics. *Geophys. J. R. Astr. Soc.*, vol. 89, 462.

MILSOM, J. 1986. Small inversion structures on seismic sections from the southern North Sea. *Proc. Geol. Ass.*, vol. 97, 379-382.

MURRELL, S. A. F. 1986. The role of deformation, heat and thermal processes in the formation of the lower continental crust. In *The Nature of the Lower Continental Crust*, 107-118. J. B. Dawson, D. A. Carswell, J. Hall and K. H. Wedepohl (editors). (Geol. Soc. London and Blackwell, Oxford).

PRICE, G. D. (with Parker, S. C., Leslie, M.). 1987. The lattice dynamics of forsterite. *Min. Mag.*, vol. 51, 157-170.

PRICE, G. D. (with Doherty, M.). 1987. Computer simulations of defects in olivine. *Terra Cognita*, vol. 7, 262.

ROBINSON, J. E. (with Preece, R.). 1986. Confirmation of the Interglacial Age of the Condat Tufa (Dordogne, France) from biostratigraphical and isotopic data. *J. Quat. Geol.*, vol. 1, 57-65.

ROBINSON, J. E. (with Preece, R., Coxon, P.). 1986. New biostratigraphical evidence for the Postglacial colonisation of Ireland and for Mesolithic forest disturbance. *J. Biogeography*, vol. 13, 487-509.

ROBINSON, J. E. 1986. A role for geologists. *Natural World*, vol. 18, 40.

ROBINSON, J. E. 1986. Euston Arch-eology Revisted. *Geology Today*, vol. 3, 11-12.

ROBINSON, J. E. 1987. A geology of the Albert Memorial and vicinity. *Proc. Geol. Ass.*, vol. 98, 19-37.

ROBINSON, J. E. 1987. A code for rock coring. *Naturopa*, Strasbourg.

ROBINSON, J. E. August 1986. B.B.C. P.M., North Thames Flood Relief.

ROBINSON, J. E. 1986. L.B.C. Breakfast programme, North Thames Flood Relief.

ROBINSON, J. E. November 1986. B.B.C. 2, Episode in *Take Nobody's Word For It*, Geology through buildings and building stones.

TYSON, R. V. 1987. The genesis and palynofacies characteristics of marine petroleum source rocks. In *Marine Petroleum Source Rocks*. J. Brooks and A. J. Fleet (editors). *Geol. Soc. Spec. Pub.*, No. 26, 47-67.

TYSON, R. V. (with Funnell, B. M.). 1987. European Cretaceous shorelines, stage by stage. In *Cretaceous Palaeogeography.* E. J. Barron (editor). *Special Issue of Palaeogeogr., Palaeoclimatol.*, Palaeoecol., vol. 59, 69-91.

WALL, ALISON, PRICE, G. D. (with Parker, S. C.). 1986. A computer simulation of the structure and elastic properties of $MgSiO_3$ perovskite. *Min. Mag.*, vol. 50, 693-707.

WALL, ALISON, PRICE, G. D. 1987. An atomistic model of the thermodynamic behaviour of $MgSiO_3$. *Terra Cognita*, vol. 7, 261-262.

WEIDNER, D. J., PRICE, G. D. 1986. Many-body forces and the elastic properties of oxides and olivine. *EOS*, vol. 67, 1240.

HISTORY AND PHILOSOPHY OF SCIENCE

MAXWELL, N. 1986. Theoretical choices. *Nature*, vol. 321, 191.

MAXWELL, N. 1987. *From Knowledge to Wisdom: A Revolution in the Aims and methods of Science* (2nd Edition). (Oxford. Basil Blackwell.) viii+ 299 pp.

MAXWELL, N. 1987. Wanted: a new way of thinking. *New Scientist*, vol. 114. 14 May, 63.

RATTANSI, P. M. 1986. Early Modern Art, 'Practical' Mathematics and Matter-Theory. In *The Physical Sciences since Antiquity*, 63-77. Rom Harré (editor). (London: Croom Helm).

SMEATON, W. A. 1987. Some large burning lenses and their use by eighteenth-century French and British chemists. *Annals of Science*, vol. 44, 265-276.

SMEATON, W. A. 1987. The Society's first fifty years: chairman's address to the 50th anniversary meeting of the Society for the History of Alchemy and Chemistry. *Ambix*, vol. 34, 1-4 and 57-61.

MATHEMATICS

ANDERSON, J. M. (with Hinkkanen, A.) 1987. The rectifiability of certain Quasi circles. *Complex Variables*, vol. 8, 145-152.

ANDERSON, J. M. (with Pitt, L. D.) 1987. On recurrence properties of certain lacunary series I, General Results. *J. reine angew. Math.*, vol. 377, 65-82.

ANDERSON, J. M. (with Pitt, L. D.) 1987. On recurrence properties of certain lacunary series II. The series $\sum_{k=1}^{n} \exp(ia^k\theta)$ *J. reine angew. Math.*, vol. 377, 83-96.

BROWN, S. N. (with Ingham, D. B.) 1986. Flow past a suddenly heated vertical plate in a porous medium. *Proc. R. Soc. London, A*, vol. 403, 51-80

BROWN, S. N. (with Leibovich, S. and Patel, Y.) 1986. Bending waves on inviscid columnar vortices. *J. Fluid Mech.*, vol. 173, 595-624.

BURTON, G. R. 1986. Multiple steady states for rotating rods. *Nonlinear Anal.*, vol. 10, 1069-1076.

BURTON, G. R. 1987. Rearrangement inequalities and duality theory for a semilinear elliptic variational problem. *J. Math. Anal. Appl.*, vol. 121, 123-137.

BURTON, G. R. 1987. Rearrangements of functions, maximization of convex functionals, and cortex rings. *Math, Ann.*, vol. 276, 225-253.

COHN, P. M. 1986. On coproducts of ordered systems, Algebra and Order. *Proc. First Int. Symp. Ordered Algebraic Structures. Laminy-Marseilles 1984*, 3-12. S. Wolfenstein (editor). (Berlin: Heldermann).

COHN, P. M. 1986. Contributor to *The Teaching of Mathematics in the Univerity of London*, by C. W. Kilminster. *Bull. London Math. Soc.*, vol. 18, 323-327.

GROSSMAN, S. I. 1987. *Elementary Linear Algebra*. 3rd Edition. (Belmont, CA: Wadsworth). 446 pages.

GROSSMAN, S. I. (with Derrick, W. R.) 1987. *Introduction to Differential Equations with Boundary Value Problems*. 3rd Edition. (St. Paul: West). 628 pages.

GROSSMAN, S. I. (with Derrick, W. R.) 1987. *A first Course in Differential Equations*. 3rd Edition. (St. Paul: West). 512 pages.

HOCKING, L. M. 1987. The damping of capillary-gravity waves at a rigid boundary. *J. Fluid Mech.*, vol. 179, 253-266.

HOCKING, L. M. 1987. Waves produced by a vertically oscillating plate. *J. Fluid Mech.*, vol. 179, 267-281.

HOCKING, L. M. 1987. Reflection of capillary-gravity waves. *Wave Motion*, vol. 9, 217-226.

JANSONS, K. M. 1986. Moving contact lines at non-zero capillary number. *J. Fluid Mech.*, vol. 167, 393-407.

JANSONS, K. M. 1987. A new angle on G. I. Taylor's scraper. *Phys. Fluids.*, vol. 30, no. 4, 1212-1213.

JOHNSON, E. R. 1985. Topographic waves and the evolution of coastal currents. *Fluid Mech.*, vol. 160, 499-509.

JOHNSON, E. R. (with Gill, A. E., Davey, M. K. and Linden, P. F.) 1986. Rossby adjustment over a step. *J. of Marine Research*, vol. 44, 713-738.

JOHNSON, E. R. 1987. Topographic waves in elliptical basins. Geophys. Astrophys. *Fluid Dynamics*, vol. 37, 279-295.

JOHNSON, E. R. 1987. A conformal mapping technique for topographic wave problems - semi-infinite channels and elongated basins. *J. of Fluid Mech.*, vol. 177, 395-405.

JOHNSON, F. E. A. 1986. A class of non-Kahlerian manifolds. *Math. Proc. Camb. Phil. Soc.*, vol. 100, 519-521.

JOHNSON, F. E. A. 1986. Fibrations of locally symmetric spaces and the failure of the Jordan-Holder property. *Proc. Amer. Math. Soc.*, vol. 98, 287-293.

JOHNSON, F. E. A. 1987. On Surface Bieberbach groups. *Mathematika*, vol. 34, 82-85.

KHAN, M. A. (with Cebeci, T.) 1986. *J. of Eng. Math.*, vol. 20, 367-379.

McMULLEN, P. (with Schulz, Ch. and Wills, J. M.) 1985. Two remarks on equivelar manifolds. *Israel J. Maths.*, vol. 52, 28-32.

McMULLEN, P. 1986. Angle-sum relations for polyhedral sets. *Mathematika*, vol. 33, 173-188.

MICHAEL, D. H. (with Dover, W. D. and Collins, R.) 1986. Invited paper on Royal Society Discussion Meeting on Novel Techniques of Non-Destructive Examination and Validation. The use of AC-field measurements for crack detection and sizing in air and underwater. *Phil. Trans. Royal Soc. London*, A320, 271-283.

MICHAEL, D. H. (with Collins, R.) 1986. Recent studies in modelling for the A.C. field measurement technique. *In Review of Progress in Quantative Nondestructive Evaluation*, vol. 6A, 193-200. D. O. Thompson and D. E. Chimenti (editors). (New York: Plenum).

MICHAEL, D. H. (with Haq, R., Shang, H. M. and Collins, R.) The detection and measurement of Symmetrical Corner Cracks by the A.C. Field Method. *J. Nondestructive Evaluation*, vol. 5, 169-177.

POWER, E. A. 1986. W. K. Clifford 1845-1879. In *Clifford Algebras and their applications in Mathematical Physics*, 12-17. J. S. R. Chisholm and A. K. Common (editors). (Dordrecht: Reidel).

POWER, E. A. (with Passante, R.) 1987. Electromagnetic-energy-density distribution around a ground state hydrogen atom and connection with van der Waals force. *Phys. Rev.*, vol. A35, 188-197.

POWER, E. A. (with Meath, W. J.) 1987. Differential multiphoton absorption by chiral molecules and the effect of permanent moments. *J. Phys. B.*, vol. 20, 1945-1964.

SCHOFIELD, A. H. 1985. Bounding the global dimension in terms of the dimension. *Bull, Lond. Math. Soc.*, vol. 17, 393-394.

SCHOFIELD, A. H. (with Formanek, E.) 1985. Groups acting on the ring of 2 by 2 generic matrices and a coproduct decomposition of its trace ring. *Proc. Amer. Math. Soc.*, vol. 95, no. 2, 179-184.

SCHOFIELD, A. H. 1986. Straitform simple artinian rings. *Proc. Lond. Math. Soc.* (3), 53, 267-287.

SCHOFIELD, A. H. (with Goodearl, K.) 1986. Non-artinian essential extensions of simple modules. *Proc. Amer. Math. Soc.*, vol. 97, no. 2, 233-236.

SMITH, F. T. (with Bodonyi, R. J.) 1986. Shock-wave laminar boundary-layer interaction in supercritical transonic flow. *Computers & Fluids*, vol. 14, no. 2, 97-108.

SMITH, F. T. 1986. The strong nonlinear growth of three-dimensional disturbances in boundary layers. *UTRC, 96-10 Tech. Rept.*

SMITH, F. T. 1986. Two-dimensional disturbance travel, growth and spreading in boundary layers. *J. Fluid Mechs.*, vol. 169, 353-377.

SMITH, F. T. 1986. Concerning inviscid solutions for large scale separated. flows. *J. of Eng. Math.*, vol. 20, 271-292.

SMITH, F. T. and STEWART, P. A. 1986. The Resonant-Triad Nonlinear Interaction, in Boundary-Layer Transition. *UTRC, 86-26 Tech. Rept.*

SMITH, F. T. 1986. Theory of high-Reynolds-number flow past a blunt body. In *Studies of Vortex Dominated Flows*, 87-107. M. Y. Hussaini and M. D. Salas (editors). (New York: Springer-Verlag).

SMITH, F. T. 1986. Non-linear effects and non-parallel flows: the collapse of separated motion. In *Stability of Time Dependent and Spatially Varying Flows*, 104-147. D. Dwoyer and M. Y. Hussaini (editors). (New York: Springer-Verlag).

SMITH, F. T. 1986. Modelling of separating flow and its stability. *J. of Theor. & Appl. Mech.* Numero special, 47-71.

SMITH, F. T. and STEWART, P. A. 1987. Three-dimensional instabilities in steady and unsteady non-parallel boundary layers, including effects of Tollmein-Schlichting disturbances and cross flow. *Proc. Roy. Soc. London*, A409, 229-248.

SMITH, F. T. (with Blennerhassett, P. J.) 1987. Short-scale waves on wind-driven water ('cat's paws'). *Proc. Roy. Soc. London*, A410, 1-17.

SMITH, F. T. (with Edwards, D. E. and Carter, J. E.) 1987. Analysis of Three-Dimensional Separated Flow with the Boundary-Layer Equations. *AIAA J.*, vol. 25, 380-387.

STEWARTSON, K. (with Leibovich, S.) 1987. On the stability of a columnar vortex to disturbances with large azimuthal wavenumber: the lower neutral points. *J. Fluid Mech.*, vol. 178, 549-566.

BARLOW, M. J. 1987. The determination of the masses of Magellanic Cloud planetary nebulae using [OII] doublet ratio electron densities. *Mon. Not. R. astr. Soc.*, vol. 227, 161-183.

BARLOW, M. J. (with Morgan, B. L., Standley, C. and Vine, H.) 1986. The determination of the mass of a Magellanic Cloud planetary nebula by speckle interferometry. *Mon. Not. R. astr. Soc.*, vol. 223, 151-172.

BARTLEY, J. H., CONBOY, J., DUFF, B. G., ESTEN, M. J., FENNELL, P., HARRISON, P. F., HEYMANN, F. F., IMRIE, D. C. (and others) 1987. The Production of Beauty Particles in Interaction at 320 GeV energy. *Physics letters*, B187, 431.

BELING, C. D., SIMPSON, R. I., CHARLTON, M., JACOBSEN, F. M., GRIFFITH, T. C. (with Moriarty, P., Fung, S.) 1987. A field assisted moderator for slow positron beam. *App. Phys.*, A42, 111-116.

BENTLEY, R. D., LEMEN, J. R. (with Fludra, A., Jakimiec, J. and Sylwester, J.) 1987. Investigations of turbulent and directed motions in solar flares. *Bull. of A.A.S.*, vol. 19, no. 2, 750.

BENTLEY, R. D. (with Siarkowski, M., Jakimiec, J. and Sylwester, J.) 1986. Observational evidence for coronal temperature depression above sunspot umbra. *Contrib. Astron. Obs. Skalnate Pleso*, vol. XV, 145.

BENTLEY, R. D. (with Simnett, G. M. and Phillips, K. J. H.) 1986. Observations at the onset of a large solar flare and their relevance to energy transfer. *Adv. Space Res.*, vol. 6 no. 6, 109-112.

BENTLEY, R. D. (with Sylwester, B., Sylwester, J., Jakimiec, J., Fludra, A., and Schrijver, J.) 1986. Physical conditions in a large flare loop on November 22, 1980 derived from SMM observations. *Contrib. Aston. Skalnate Pleso*, vol. XV, 145.

BENTLEY, R. D., LEMEN, J. R. (and others) 1986. Chapter 5 - Flare energetics, *Proc. Solar maximum Mission Flare Workshop - Energetic Phenomena on the Sun.* M. R. Kundu and B. E. Woodgate (editors). (NASA CP 2439), 5.1 - 5.73.

BOYLE, S. J., HOWARTH, I. D., WILSON, R. (and Raymond, J.) 1986. UV spectroscopy of the X-ray binary HZ Her/Her X-1. In *New Insights in Astrophysics, UCL July 1986.* (Noordwijk: ESA SP-263), 471-474.

BRANDUARDI-RAYMONT, G. 1986. Soft X-ray spectra of active galactic nuclei, *Lecture Notes in Physics*, vol. 266, 407-414.

BULLOCK, F. W., FITCH, P. J., SANSUM, R. A., WELLS, J. 1986. Coherent Single Pion Production by Antineutrino Charged Current Interactions and Test of PCAC. *Z. Phys.*, vol. C. 31, 191.

BULLOCK, F. W., FITCH, P. J., SANSUM, R. A., WELLS, J. 1986. Measurement of Total Cross Sections for Neutrino and Antineurotino Charged-Current Interactions in Hydrogen and Neon. *Phys. Lett. 173B*, 211.

BULLOCK, F. W., FITCH, P. J., SANSUM, R. A., WELLS, J. 1986. Spin Alignment of p^0 Mesons Produced in Antineutrino and Neutrino Neon Charged-Current Interactions. *Phys. Lett.*, vol. 187, 179.

BULLOCK, F. W., BURKE, S., FITCH, P.J. 1986. Measurement of the neutral to charged current cross section ration for neutrino and anti-neutrino interactions on protons. *Phys. lett. 178B*, 329.

BULLOCK, F. W., DUFF, B. G., ESTEN, M. J., HEYMANN, F. F., LUSH, C. J. 1987. The holographic bubble chamber experiment and the determination of the effective charmed quark mass and the K-factor for hadronic charm production. *Zeitschrift for Phys. C.*, CERN/EP 87-77.

BURGESS, D. 1987. Simulations of backstreaming ion beams formed at oblique shocks by direct reflection. *Ann. Geophys.*, vol. 5A, no. 3, 133.

CLEGG, R. E. ., BARLOW, M. J. (with Harrington, J. P. and Walsh, J. R.) 1987. The Planetary Nebula NGC 3918. *Astophys. J.*, vol. 314, 551-571.

COATES, A. J., JOHNSTONE, A. D. (and others) 1987. Giotto measurements of cometary and solar wind plasma at the comet halley bow shock. *Nature*, vol. 327, 489.

COATES, A. J., JOHNSTONE, A. D., NORRIS, A. J. (and others) 1986. AMPTE-UKS observations of current sheets in the solar wind. *Adv. Space Res.*, vol. 6, no. 1, 89.

CONBOY, J. E., MILLER, D. J. 1986. Neutral hyperon production in K p interactions at low momentum. *J. Phys. G.*, vol. 12, 1143-1164.

CUDLIP, W., McINTYRE, N. F. 1987. Seasat altimeter observations of an Antarctic lake. *Ann. Glac.*, vol. 9, 55-59.

CULHANE, J. L. (and others) 1986. Chapter 4 - Chromospheric explosions. *Proc. Solar Maximum Mission Flar Workshop - Energetic Phenomena on the Sun.* M. R. Kundu and B. E. Woodgate (editors). (NASA CP 2439), 4.1 - 4.42.

DOYLE, J. G. (with Byrne, P. B.) 1986. Faint optical flares from the dwarf M star Gliese 812 (Ross 193). *Astr. Astrophys.*, vol. 154, 370.

DOYLE, J. G. (with Mason, H. E. and Vaernazza J. E.) 1985. Interpretation of EUV spectra from loop structures in an active region at the limb. *Astr. Astrophys.*, vol. 150, 69.

DUFF, M. J. B. (Editor) 1986. Complexity, In*Intermediate-Level Image Processing.* 307-314. (London: Academic Press).

DUFF, M. J. B. 1986. How not to benchmark image processors, In*Evaluation of Multicomputers for Image Processors*, 3-12. L. Uhr, K. Preston Jr., S. Levialdi, M. J. B. Duff (editors). (Orlando: Academic Press Inc.).

DUFF, M. J. B. 1986. Cellular machines - theory and practice. In *Data Analysis in Astronomy II*, 203-10, V. Di Gesù, L. Scarsi, P. Crane, J. H. Friedman, S. Levialdi (editors). (New York and London: Plenum Press).

DUFF, M .J. B. 1986. Trends in parallel processing applications (panel discussion). *Ibid.*, 377-95.

DUFF, M. J. B. 1986. Pyramids - expected performance. In *Pyramidal Systems for Computer Vision*, 59-73, V. Cantoni, S Levialdi (editors). (Berlin: Springer-Verlag).

DUFF, M. J. B. (with H. J. Siegel, F. J. Corbett) 1986. Architectures and Algorithms for Digital Image Processing, *SPIE Proceedings*, vol. 596, 233 pp. (USA: Bellingham, WA.).

EDMENDS, J. S., MILLER, D. J. 1987. Studies of a Gas filled UV Detector. *NIM-A*, vol. A258, no. 2, 185-194.

ERCAN, E. N., BRANDUARDI-RAYMONT, G. (with Kiziloglu, U., Esendemir, A. and Tokdemir, F.) 1985. EXOSAT CMA observations of X0512-401 = NGC1851. *Proc. ESA Workshop: Cosmic X-ray spectroscopy mission, Lyngby, Denmark* (ESA SP-239, 121.

FERNLEY, J. A. (with Jameson, R. F. and Skillen, I.) 1987. The Radii and Masses of Dwarf Cepheids. *Mon. Not. Roy. astr. Soc.*, vol. 225, 451-468.

FERNLEY, J A. (with Longmore, A. J. and Jameson, R. F.) 1987. A Universal period Infrared Luminosity Relation for RR Lyraes? *Lecture Notes in Physics*, vol. 274 239-242.

FORDHAM, J. L. A. 1986. The use of CCDs in photon counting detectors. In *Proc ESO-OHP Workshop: The Optimisation of the use of CCD detectors in Astronomy* J. P. Balateau and S. D'Odorica (editors), *Observatoire de Haute Provence, 17-19 June 1986. (European Southern Observatory)*, 309-14.

FORDHAM, J. L. A. (with Jorden, A. R.) 1986. Reducing the granularity noise of an image photon counting system by magnetic scanning. *Q. Jl. R. astr. Soc.*, vol. 27, 166-181.

FORDHAM, J. L. A., BONE, D. A. (with Jorden, A. R.) 1986. The UCL CCD-based image photon counting system. In *Proc. SPIE Conf: Instrumentation in Astronomy VI, Tucson, Arizona, 4-6 March 1986*, 206-12.

FORSHAW, M. R. B. 1986. Pattern storage and associative memory in quasi-neural networks, *Patt. Recogn. Letts.*, vol. 4, 427-31.

FOUNTAIN, T. J. 1986. An evaluation of some chips for image processing. In *Evaluation of Microcomputers for Image Processing*, 57-76, L. Uhr, K. Preston Jnr., S. Levialdi, M. J. B. Duff (editors). (Orlando: Academic Press Inc.).

FOUNTAIN, T. J. 1986. Array architectures for iconic and symbolic image processing. In *Proc. 8th International Conf. on Pattern Recognition, Paris: 27-31 October 1986.* (Washington DC: IEEE Computer Society Press).

FOUNTAIN, T. J. 1987. *Processor Arrays: Architectures and Applications.* (London: Academic Press). 214 + xi.

FOUNTAIN, T. J., POSTRANECKY, M., SHAW, G. K. 1987. The CLIP-2 system *Patt. Recogn. Letts.*, vol. 5, 71-79.

FULLER-ROWELL, T. J., REES, D. (with Quegan, S., Moffett, R. J., Bailey, G. J.) 1987. Interactions between neutral thermospheric composition and the polar ionosphere, using a coupled global model. *J. Geophys. Res.* July special colour issue.

GRIFFITH, T. C. 1986. Experimental aspects of positron and postronium physics. *Adv. in Atomic and Mol. Phys.*, vol. 22, 37-75.

GROVES, G. V. 1986. An empirical model for solar cycle changes in mesospheric structure at longtitudes 44-77°E. *Planet. Space Sci.*, vol. 34, 1037-41.

GROVES, G. V. (with Forbes, J. M.) 1987. Diurnal propagating tides in the low-latitude middle atmosphere. *J. Atmos. Terr. Phys.*, vol. 49, 153-64.

GUEST, J. E., KILBURN, C. R. J. (with Pinkerton, H., Duncan, A. M.) 1987. The evolution of lava flow-fields: Observations of the 1981-83 eruptions of Mount Etna, Scicily. *Bull. Volcanol.*, vol. 49, 527-540.

GUEST, J. E. (with Wood, C. and Greeley, R.) 1984. Lava tubes, terraces and megatumuli on the 1614-24 pahvehoe lava flow field, Mount Etna, Sicily. *Ibid.*, 635-48.

GUEST, J. E. (with Duncan, A. M. and Chester, D. K.) 1984. Quarternary stratigraphy of Mount Etna, Sicily: the effects of differing palaeoenvironments on styles of volcanism. *Ibid.*, 497-516.

GUEST, J. E. (with Rolph, T. C. and Shaw, J.) 1987. Geomagnetic field variations as a dating tool: Application to Sicilian lavas. *J. Archeological Sci.*, vol. 14, 215-225.

GUEST, J. E. (with Chester, D. K. and Duncan, A. M.) 1986. Volcanism in Italy: the hazard implications of hydromagnetic eruptions. *Interdisciplinary Sci. Rev.*, vol. 11, 377-85.

GUZKOWSKA, M. A. J., MASON, I. M., RAPLEY, C. G. (with Street,-Perrott, F. A.) 1986. The prospects for hydrological measurements using ERS-1. *Proc. ISLSCP Conf., The paramenterization of land surface characteristics, Rome, December 1985,* (ESA SP-248), 321.

GUZKOWSKA, M. A. J., RAPLEY, C. G., MASON, I. M. 1986. Satellite altimeter measurements over land and inland water. *Proc. IGARSS 1986 Symp., Zurich,* (ESA SP-254), 1563.

GUZKOWSKA, M. A. J., MASON, I. M., RAPLEY, C. G. (with Street-Perrott, F. A.) 1986. Response of lake levels climatic change - past, present and future. In *Effects of Changes in Stratospheric Ozone and Global Climate,* vol. 13, 211-216. J. G. Titu (editor).

HEYLAND, G. R., CHARLTON, H., DAVIES, S. A., GRIFFITH, T. C. 1986. On the annihilation rate of thermalised free positrons in gases. *Phys. Letts.*, vol. A119, 289-92.

HIRST, C. J., WALKER, D. D., DIEGO, F., FISH, A. C., CHARALAMBOUS, A. 1986. General philosophy for the control and data reduction for the Anglo-Australian and William Herschel Telescopeś Echelle spectrographs. *Instrumentation in Astronomy VI SPIE, March 1986, Tucson.* vol. 627, 720-721.

HOWARTH, I. D. 1987. An ultraviolet eye on the sky. *New Scientist,* vol. 113, no. 1545, 58-62.

HOWARTH, I. D. 1987. A subdwarf's startling stellar wind. *Mon. Not. Roy. astr. Soc.*, vol. 225, 33p-38p.

HOWARTH, I. D. 1987. The spectroscopic orbit of HD 128220. *Mon. Not. Roy. astr. Soc.*, vol. 226, 249-256.

HOWARTH, I. D. (with Phillips, A. P.) 1986. The interstellar environment of HD 50896. In *New Insights in Astrophysics UCL July 1986,* 563-564. (Noordwijk: ESA SP-263).

HOWARTH, I. D. 1986. The ultraviolet spectrum and interstellar environment of HD 50896. *Mon. Not. Roy. astr. Soc.*, vol. 222, 809-852.

HOWARTH, I. D. (with Hammerschlag-Hensberge, G., and Kallman, T.) 1986. Orbital variability in the wind of the massive X-ray binary HD 153919/4U 1700-37. In *New Insights in Astrophysics UCL July 1986,* 475-477. (Noordwijk: ESA SP-263).

HOWARTH, I. D. (with Cordova, F.) 1987. Accretion onto compact stars in binary systems. In *Exploring the Universe with IUE,* 395-426. Y. Kondo et al (editor). (Dordrecht: Reidel).

HUMBERSTON, J. W. 1986. Positronium - its formation and interaction with simple systems. *Adv. At. Mol. Phys.*, vol. 22, 1-36.

HUMBERSTON, J. W. 1987. On the thermalization and annihilation of positrons in helium. *J. Phys. B.*, vol. 20, L347-8.

HUMBERSTON, J. W. (with Ward, S. J. and McDowell, M. R. C.) 1987. Elastic scattering of electrons (or positrons) from positronium and the photodetachment of the positronium negative ion. *J. Phys. B.*, vol. 20, 124-49.

HUMBERSTON, J. W., CHARLTON, M., JACOBSEN, F. M. (with Deutch, B. I.) 1987. On antihydrogen formation in collisiions of antiprotons with positronium. *J. Phys. B.*, vol. 20, L25-9.

IP, H. H-S, POTTER, D. J. 1987. Comparison of 2-D gel electrophoresis images. *Patt. Recogn. Letts.*, vol. 5, 81-86.

JACOBSEN, F. M. 1986. Processes following thermilization of positive particles in condensed matter. *Hyperfine Interactions,* vol. 32, 501-10.

JENNINGS, R. E. (and others) 1986. Candidate solar-type protostars in nearby molecular cloud cores. *Astrophys. J.*, vol. 307, 337-349.

JENNINGS, R. E. 1986. History of British Infrared Astronomy since the Second World War. *Q. Jl. R. astr. Soc.*, vol. 27, 454-461.

JENNINGS, R. E., CAMERON, D. H. M., CUDLIP, W., HIRST, C. J. 1987. IRAS observations of NGC 1333. *Mon. Not. R. astr. Soc.*, vol. 226, 461-471.

JOHNSTONE, A. D., COATES, A. J. (and others) 1986. Giotto observations of the bow shock at Comet Halley. *Adv. Space Res.*, vol. 6, no. 1, 229.

JOHNSTONE, A. D., COATES, A. J. (and others) 1986. Comet tail formation - Giotto observations. *Ibid.*, 337.

JOHNSTONE, A. D., COATES, A. J. (and others) 1986. The cometopause region at Comet Halley. *Proc. of 20th ES-LAB symposium on the Exploration of Halley's Comet*, EPA, 1, 213.

JOHNSTONE, A. D., COATES, A. J. (and others) 1986. Variations in the solar wind flow during the approach to Comet Halley. *Ibid.*, 25.

JOHNSTONE, A. D., COATES, A. J. (and others) 1986. Waves in the magnetic field and solar wind flow outside the bow shock at Comet halley. *Ibid.*, 277.

JOHNSTONE, A. D., COATES, A. J. (and others) 1986. Energetic cometary water-group ions at Halley's bow shock: observations with the Giotto ion spectrometer IIS. *Ibid.*, 305.

JOHNSTONE, A. D., COATES, A. J., RAYMONT, J. (with others) 1985. The JPA instrument on Giotto to study the solar wind interaction with Halley's Comet. *Proc. Int. Workshop, Graz, Austria, Field, particle and wave experiments on cometary missions.* K. Schwingenschuh and W. Riedler (editors). Verlag der Osterreichischen Akademie der Wissenschaftern. 186.

JOHNSTONE, A. D., COATES, A. J., SMITH, M. F., RODGERS, D. J. 1986. Lithium tracer ion energisation observed at AMPTE-UKS. *AGU Monograph on Ion Acceleration in the Magnetosphere and Ionosphere*, vol. 38, 186.

JOHNSTONE, A. D., RODGERS, D. J., COATES, A. J., SMITH, M. F. (with Southwood, D. J.) 1986. Ion acceleration during steady-state re-connection at the dayside magnetopause. *Ibid.*, 136.

JONES, T. W. (and others) 1986. Calculation of atmospheric neutrino-induced backgrounds in a nucleon decay search. *Phys. Rev. Lett.*, vol. 57, 1986-89.

JONES, T. W. (and others) 1987. Observation of a neutrino burst in coincidence with supernova 1987A in the Large Magellanic Cloud. *Phys. Rev. Lett.*, vol. 58, 1494-1496.

KELLET, B. J., BRANDUARDI-RAYMONT, G., CULHANE, J. L., MASON, I. M., MASON, K. O., WHITEHOUSE, D. R. 1987. Exosat observations of the SNR PKS 1209-52.*Mon. Not. R. astr. Soc.*, vol. 225, 199-212.

KING-HELE, S. 1985. Assessing the accuracy of forecast charts. *Weather*, vol. 40,384.

LAPINGTON, J. S., SMITH, A. D., WALTON, D. M., SCHWARZ, H. E. 1987. Microchannel plate pore size limited imaging with ultra-thin wedge and strip anodes. *IEEE Trans. Nucl. Sci.*, NS-34, 431-433.

LAPINGTON, J. S., MASON, I. M., SCHWARŻ, H E. 1986. Absorption effects in parallel plate proportional counters. *SPIE roc. 'X-ray Instrumentation in Astronomy'*, vol. 597, 222.

LARRICHIA, G., CHARLTON, M., BELING, C. D., GRIFFITH, T. C. 1987. Density dependence of positron annihilation and positronium formation in H_2 gas at temperatures between 77 and 297K. *J. Phys. B.*, vol. 20, 1865-74.

ARRICHIA, G., CHARLTON, M., DAVIES, S. A., BELING, C. D., GRIFFTH, T. C. 1987. The production of collimated beams of O-Ps atoms using charge exchange in positron-gas collisions. *J. Phys. B.*, vol. 20, L99-105.

EMEN, J. R. (with Fawcett, B. C., Jordan, C., Phillips, K. J. H.) 1987. New spectral line indentifications in high temperature flares,. *Mon. Not. R. astr. Soc.*, vol. 225, 1013-1023.

EMEN, J. R. (and others) 1986. Investigations of turbulent motions and particle acceleration in solar flares. *Adv. Space Res.*, vol. 6, no. 6, 191-193.

EMEN, J. R., BENTLEY, R. D. (with Sylwester, J.) 1986. Determination of the calcium elementation abundance for 43 flares from SMM-XRP solar X-ray spectra. *Ibid.*, 245-248.

EMEN, J. R., BENTLEY, R. D. (with Mewe, R., Schrijver, C. J.) 1968. Differential emission measure distributions of Capella and ?^{2} CrB. *Adv. Space Res.*, vol. 6 no. 6, 133-135.

EMEN, J. R. (with Sywester, J., Jakimiec, J., Fludra, A.) 1986. Density-temperature diagnostics of 31 August, 1980, double flare. *Contrib. Astron. Obs. Skalnate Pleso*, vol. XV, 145.

EMEN, J. R., BENTLEY, R. D. (and others) 1986. High-temperature plasma diagnostics of solar flares and comparison with model calculations. In *Solar Maximum Analysis, Proc. of the SMA-SMY Workshop, Irkutsk.* V. E. Stepanov and V. N. Obridko (editors). (Utrecht: VNU Science Press).

EMEN, J. R., BENTLEY, R. D. (with Mewe, R., Sylwester, J., Sylwester, B.) 1986. Variation in calcium abundance during flares. *Ibid.*

EMEN, J. R. (with Phillips, K. J. H., Doschek, G. A., Cowan, R. D.) 1986. Inner-shell X-ray line spectra of highly ionized titanium, chromium, iron, and nickel and their application to laboratory plasmas. *J. Appl. Phys.*, vol. 60, 1960.

EMEN, J. R. (with Mewe, R., van den Oord, G. H. J.) 1986. Calculated X-radiation from optically thin plasmas VI: improved calculations for continuum emission and approximation formulae for nonrelativistic average Gaunt factors. *Astron. Astrophys, Suppl. Ser.*, vol. 65, 511.

LIGHTFOOT, J. F. 1987. A precessing Jet in L1551. In *Circumstellar Matter, Proc. 122 IAU Symp. Heidelberg, 23-27 June 1987.* I. Appenzeller and C. Jordan (editors). (Dordrecht: Reidel), 75-76.

LIGHTFOOT, J. F. and GENCROSS, W. M. 1986. Molecular hydrogen mapping of Herbig-Haro 7-11; a filamentary bullet? *Mon. Not. R. astr. Soc.*, vol. 221, 993-1000.

LIGHTFOOT, J. F. and GLENCROSS, W. M. 1986. A protostellar jet model for Herbig-haro 2. *Mon. Not. R. astr. Soc.*, vol. 221, Short Communication 47p-50p.

LYNAS-GRAY, A. E. (with Kilkenny, D.) 1987. The Be Star HD 160886. *Observatory*, vol. 107, 9-12.

LYNAS-GRAY, A. E. (with Kilkenny, D.) 1986. The light curve of the pulsating extreme helium star BD + 13° 3224: further evidence of a decline in the period decrease rate. *IAU Colloquium*, vol. 87, 117-123.

LYNAS-GRAY, A. E. (with Kilkenny, D.) 1986. Stromgren photometry and radial velocity observations of the variable extreme helium star HD 160641. *SAAO Circulars*, vol. 10, 45-50.

LYNAS-GRAY, A. E. (with Dufton, P. L., Brown, P. J. F., Lennon, D. J.) 1986. Non-LTE calculations of A III line strengths in early-type stars. *Mon. Not. R. astr. Soc.*, vol. 222, 713-718.

LYNAS-GRAY, A. E. (with Kilkenny, D., Skillen, I., Jeffrey, C. S.) 1986. Non-Radial Pulsations in the Extreme helium star HD 160641. *LAU Colloquium*, vol. 87, 87-93.

LYNAS-GRAY, A. E. (with Lennon, D. J., Brown, P. J. F., Dufton, P. L.) 1986. Non-LTE Calculations of Silicon-Line Strengths in B-type Stars. *Mon. Not. Roy. astr. Soc.*, vol. 222, 719-729.

MAN, K. F., SMITH, A. C. H. (with Harrison, M. F. A.) 1987. A measurement of the cross section for ionisation of Mo^+ by electron impact. *J. Phys. B.*, vol. 20, 1351-1355.

MAN, K. F., SMITH, A. C. H. (with Harrison, M. F. A.) 1987. A measurement of the cross section for ionisation of Cr^+ by electron impact. *J. Phys. B.*, vol. 20, 2571-2575.

MASON, K. O., CORDOVA, F. A., BODE, M. F., BARR, P. 1986. Intense soft X-rays from RS Ophiuchi during the 1985 outburst. *RS Ophiuchi (1985) and the Recurrent Nova Phenomenon*, 167. M. F. Bode (editor). (Utrecht: VNU Science Press).

MASON, K. O., BRANDUARDI-RAYMONT, G., CORDOVA, F. A., CORBET, R. H. D. 1987. Observation of a partial X-ray eclipse in the long-period low-mass X-ray binary 2S 0921-630. *Mon. Not. R. astr. Soc.*, vol. 226, 423-432.

MASON, K. O. 1986. Accretion disks in Low-mass X-ray binaries. *Lecture Notes in Physics*, vol. 266, 29-57.

MASON, K. O., BRANDUARDI-RAYMONT, G. (and others) 1986. Exosat observations of two gamma-ray burst sources. *Adv. Space res.*, vol. 6, no. 4, 65-68.

MASON, K. O., BRANDUARDI-RAYMONT, G. (and others) 1986. Continuum and iron K-line emission from low-mass X-ray binaries. *Mon. Not. R. astr. Soc.*, vol. 218, 129-138.

MASON, K. O., BRANDUARDI-RAYNONT, G. (and others) 1987. A 25 min modulation from the vicinity of the unusually soft X-ray source X0142+614. *Mon. Not. R. astr. soc.*, vol. 226, 645-654.

MASON, K. O. (with Córdova, F. A., White, N. E.) 1986. Simultaneous X-ray and infrared observations of Cygnus X-3. *Astrophys. J.*, vol. 309, 700.

MASON, N. J., NEWELL, W. R. 1986. Predispersive electron gun for an electron monochromator. *J. Phys. E.*, vol. 19, 722-726.

MASON, N. J., NEWELL, W. R. 1987. Simultaneouos electron - photon excitation of the helium 2^3S state. *J. Phys. B.*, vol. 20, L323-325.

MASON, N. J., NEWELL, W. R. 1986. The total excitation cross section of the $C^3\pi\mu$ state of H_2. *J. Phys. B.*, vol. 19, L587-L591.

MASON, N. J., NEWELL, W. R. 1987. Total cross sections for metastable excitation in rare gases. *J. Phys. B.*, vol. 20, 1357-1377.

McINTYRE, N. F. (with Dowdeswell, J. A.) 1987. The surface topography of large ice masses from Landsat imagery. *J. Glaciology*, vol. 33, no. 113, 16-23.

McINTYRE, N. F., CUDLIP, W. 1987. Observation of a giant antarctic tabular iceberg by satellite radar altimetry. *Polar Record*, vol. 23, no. 145, 458-462.

McINTYRE, N. F., 1985. A reply to "A re-assessment of the mass balance of the Lambert Glacier drainage basin". *J. Glaciology*, vol. 31, 381.

McINTYRE, N. F. 1987. Discharge of ice into Filchner-Ronne ice shelves. *Filchner-Ronne Ice Shelf Programme*, no. 3, 47-52.

McNALLY, D. 1986. The Birth of Stars, *Proc. GIREP Conference 1986 - Cosmos - an Educational Challenge*. ESA SP-253, 51-55.

McNALLY, D. 1986. Astronomy in the study of physical science. *Scope*, no. 5, 17-18.

McNALLY, D. (and others) 1987. A survey of the yellow-red interstellar diffuse spectrum lines. *Proc. IAU Symp. 120, Goa, India, December 1985.* 321-322. (Dordrecht: Reidel).

McNALLY, D., CRAWFORD, I. A. 1987. A search for the Diffuse Interstellar Lines at 5780 and 5797Å in the Coma of Comet Halley and the possible Detection of an Unidentified Cometary Absorption Line. *The Observatory,* vol. 107, 20-24.

McNALLY, D., FOSSEY, S., REES, P. C. T., SOMERVILLE, W. B. (with Ashfield M., Baines, D. W. T., Whittet, D. C. B.) 1987. A survey of the Yellow-Red Interstellar Diffuse Spectrum Lines. In *Astrochemistry,* 321-322. M. S. Vardya and S. P. Tarafdar (editors). *Proc. IAU Symp. 120, Goa, India, December 1985.* (Dordrecht: Reidel).

MOORES, D. L. 1986. Scattering of low-energy electrons by neutral lithium atoms: five-state close-coupling calculations. *J. Phys. B.,* vol. 19, 1843-1851.

O'BRIEN, P. T., WILSON, R. (with Goldhalelkar, P. M.) 1986. Variability of emission lines in quasar spectra. In *Quasars,* 349-350. G. Swarup and K. Kapahi (editors). *Proc. IAU Symp. 120, Bangalore, India, December 1985.* (Dordrecht: Reidel).

O'BRIEN, P. T., WILSON, R. (with Goldhalelkar, P. M.) 1986. Redshift evolution of intergalactic absorption clouds. In *New Insights in Astrophysics,* 435-438. UCL July 1986. (Noordwijk: ESA SP-263).

O'BRIEN, P. T., WILSON, R. (with Goldhalelkar, P. M.) 1987. The ultraviolet continuum of quasars. *Ibid.,* 601-604.

O'BRIEN, P. T., WILSON, R. (with Goldhalelkar, P. M.) 1986. Variability of emission lines in quasar spectra: Q0405-123 and Q1202+281. *Ibid.,* 711-714.

O'BRIEN, P. T., WILSON, R. (with Goldhalekar, P. M.) 1986. Ultraviolet spectra of quasars in the redshift interval 0.3 to 2.0. *Mon. Not. R. astr. Soc.,* vol. 222, 71-110.

PARKINSON, J. H. (and others) 1986. CHASE observations from Spacelab 2. *Adv. Space Res.,* vol. 6, no. 8, 243-251.

PATRICK, T. J. (with Sidney, R. C. and Towlson, W.A.) 1987. Cold stepping drive for the ISO/LWS. *Cryogenics,* vol. 27, 63-64.

PATRICK, T. J. (with McDonald, P. C.) 1986. Tests of MoS_2-lubricated bearings for a cryogenic space instrument. In *Oroc. ICEC 11.* (London: Butterworth).

PEACH, G. 1986. Review of *Beatrice Hill Tinsley, 1941-1981, Astronomer. Phys. Bull.,* vol. 37, 427.

PEACH, G. 1987. Oscillator strengths for the Li isoelectronic sequence. *Information Quarterly for Atomic Processes and Applications,* vol. 28, 2-4.

PEACH, G. (with Al-Saqabi, B. N. I.) 1987. Unified theories of the pressure-broadening and shift of spectral line II. Van der Waals interactions. *J. Phys. B.,* vol. 20, 1175-1191.

PEACH, G. and SARAPH, H. E. 1986. Ionisaton of H, He, Li, Na and K by electron and heavy particle impact. *Information Quarterly for Atomic Processes and Applications,* vol. 28, 43-51.

POTTER, D. J. 1986. Parallel algorithms for the analysis of two-dimensional electrophoresis gels. *Computers and Biomedical Research,* vol. 19, 565-574.

PRINJA, R. K. 1986. The stellar winds of early-type stars in the SMC. In *New Insights in Astrophysics,* 343-346. UCL July 1986. (Noorwijk: ESA SP-263).

PRINJA, R. K., HOWARTH, I. D. 1987. Ionization fractions and mass-loss in O stars. In *Circumstellar matter,* 449-450. *Proc. IAU Symp. 122. Heidelberg, F.R.G., June 1986.* I. Appenzeller and C. Jordan (editors). (Dordrecht: Reidel).

PRINJA, R. K., HOWARTH, I. D. (with Henrichs, H. F.) 1987. Ultraviolet observations of extensive variability in the stellar wind of Xi Per. *Astrophysical Journal,* vol. 317, 389-411.

RAPLEY, C. G. (with Griffiths, H. D.) 1986. Techniques for providing high spatial resolution from radar altimeters. In *Proc. IGARSS 1986. Symp., Zurich,* ESA SP-254, 1331.

RAPLEY, C. G. (and others) 1986. The feasibility of an ERS-1 oriented, but scientifically autonomous, international experiment campaign. In *Proc. Workshop on ERS-1 Wind and Wave Calibration, Schliersee, June 1986,* 223.

RAPLEY, C. G. (with Griffiths, H.) 1987. Geophysical radar altimeters for the 1990's. *Proc. EARSeL Symp., Strasbourg,* ESA SP-233, 157-165.

REES, D. 1986. Balloon-Based Interferometric Techniques. In *Proc. NASA Symposium on Global Wind Measurements,* 109. W. E. Baker and R. J. Curran (editors). (NASA Publication).

REES, D. 1986. The Time-Dependent Dynamical Response of the Thermosphere to Major Geomagnetic Disturbances. *Thermosphere Dynamics Workshop II, Goddard Space Flight Centre.* NASA Conference Publication 2389, P.323.

REES, D. 1986. Observations of Vertical Winds and the Origin of Thermospheric Gravity Waves Launched by Auroral Substorms and Westward Travelling Surges. *Ibid.,* 297.

REES, D., CONBOY, J., HEINZ, H. (with Witt, G., Stegman, J. and Mutagh, D. P.) 1986. Auroral and Airglow observations using a grating spectrometer with an imaging photon detector. *J. Phys. E.,* vol. 19, 597-609.

REES, D., FULLER-ROWELL, T. (with Quegan, T. and Moffett, R.) 1986. Self-Consistent Modelling of the Polar Thermosphere and Ionosphere to Magnetospheric Convection and Precipitation. *Thermosphere Dynamics Workshop II, Goddard Space Flight Centre.* NASA Conference Publication 2389, 341.

REES, D., PERLA, I., MEREDITH, N. P. (with Green, J. and van der Heijden, N.) 1987. Networking Ground-based Images of Comet Halley during the Giotto Encounter. *EOS Trans. Am. Geophys, Union,* no. 50.

REES, D., MEREDITH, N. (with Wallis, M.) 1987. Comparison of Ion Structure in Comets Halley and Giacobini-Zinner. *Planet. Space Sci.,* vol. 35, no. 3, 299-311.

REES, D. (with Wallis, M.) 1986. Optical Observations of Ion Tail Structures and Velocity Fields in Comet Halley during the period of the Five Spacecraft Encounters. *Adv. Space Res.,* vo. 5, no. 12, 161-255.

REES, D., MEREDITH, N. P. (with Wallis, M.) 1986. Optical Observations of Ion Tail Structure and Velocity Fields in Comet Giacobini-Zinner near the time of the I.C.E encounter. *Adv. Space Res.,* vol. 6, no. 5, 267.

REES, D., MEREDITH, N. P. (with Wallis, M.) 1986. Optical observations of the neutral and ion coma of Comet Halley. *ESA SP-250,* no. 1, 493-498.

REES, D. (with Smith, R. W., McCormac, F. G. and Charleton, P.) 1986. Two station observations of thermospheric winds in the auroral zone and the polar cap. *J. Atmos. Terr. Phys.,* vol. 48, no. 1, 97-105.

REES, D. (and others) 1986. Mean neutral circulation in the winter polar region: Thermospheric "weather" maps for December 1981. *J. Geophys. Res.,* vol. 91, 1633-1649.

ROCHE, P. F. 1987. Infrared features in extragalactic objects. In *Polycyclic Aromatic Hydrocarbons and Astrophysics,* 307-16. A. Leger et al (editors). (Dordrecht: Reidel).

RODGERS, D. J., COATES, A. J., JOHNSTONE, A. D., SMITH, M. F. (with Heath, J. W., Wrenn, G. L.) 1986. Field-aligned flows of ionospheric plasma in the magnetosphere. *Adv. Space Res.,* vol. 6, no. 3, 89.

RODGERS, D. (and others) 1986. Coordinated observations of electron energy spectra and electrostatic cyclotron waves during diffuse auroras. *Ann. Geophys.*, vol. 4A, no. 5, 405-412.

ROSEN, S. R., MASON, K. O. (with Cordova, F. A.) 1987. Phase-revolved optical spectroscopy of the AM Her system E1405-451. *Mon. Not. R. astr. Soc.*, vol. 224, 987-1006.

SCHWARZ, H E. 1986. Polarimetry of cool giants and supergiants. *Vistas in Astr.*, vol. 29, 253-280.

SCHWARZ, H. E. (with Aspin, C.) 1986. Polarigenic mechanisms in cool stars. In *Lecture notes in Physics,* vol. 254, 403. M. Zeilik and D. M. Gibson (editors). (Heidelberg: Springer-Verlag).

SCHWARZ, H. E. (with Aspin, C.) 1986. Polarimetry of cool, long-period variables. *Ibid.*, 407.

SCHWARZ, H. E., LAPINGTON, J. S., CULHANE, J. L. 1986. High resolution imaging with a solid scintillator-based detector. *SPIE Proc. X-ray Instrumentation in Astronomy,* vol. 597, 397.

SCHWARZ, H. E., LAPINGTON, J. S., HILLIARD, N. S., ROSE, J. G., SHEATHER, P. H., CULHANE, J. L. 1986. Applications of the Penning Gas Imager. *Ibid.*, 178.

SCOTT, R. F. 1987. Instrument checkout activities at the Mullard Space Science Laboratory. *J. Brit. Inter. Soc.*, vol. 40, 103-108.

SEATON, M. J. 1986. Outer-region contributions to radiative transition probabilities. *J. Phys. B.*, vol. 19, 2601-2610.

SEATON, M. J. 1987. On the fitting of Buttle corrections to the R-matrix. *J. Phys. B.*, vol. 20, L69-72.

SEATON, M. J. (with Burke, V. M.) 1986. Use of the Burgess sum rule in calculating cross-sections for electron impact excitation of optically-allowed transitions in positive ions. *J. Phys. B.*, vol. 19, L527-533.

SEATON, M. J., SARAPH, H. E., STOREY, P. J. (with Berrington, K. A. and Eissner, W. B.) 1987. A Comparison of close-coupling calculations using UCL and QUB codes. *Computer Physics Communications,* vol. 44, 105-119.

SKINNER, C. J. 1987. Infrared and radio excesses of Late-type Stars. In *Circumstellar Matter,* 379-380. *Proc. IAU Symp. 122, Heidelberg, June 1986.* I. Appenzeller and C. Jordan (editors). (Dordrecht: Reidel).

SKINNER, C. J., WHITMORE, B. 1987. The circumstellar environment of α Orionis. *Mon. Not. R. astr. Soc.*, vol. 224, 335-348.

SMALE, A. P., MASON, K. O., MUKAI, K. 1987. The period of the globular cluster X-ray source X1820-303; confirmation from Ariel V data. *Mon. Not. R. astr. Soc.*, vol. 225, 7-9.

SMALE, A. P., BRANDUARDI-RAYMONT, G., MASON, K. O. (and others) 1986. Long-term and periodic variability of 4U 1258-61 (GX304-1). *Mon. Not. R. astr. Soc.*, vol. 221, 961.

SMALE, A. P. (and others) 1986. X-ray and optical variability in the low-mass burst source X1735-444. *Mon. Not. R. astr. Soc.*, vol. 223, 207.

SMITH, L. J., WILLIS, A. J. (with Garmany, C. D. and Conti, P. S.) 1986. A search for UV line profile variability in HD 96548 and HD 93131. In *New Insights in Astrophysics,* 389-392. UCL, July 1986. (Noorwijk: ESA SP-263).

SMITH, M. F., JOHNSTONE, A. D. (and others) 1987. Upstream waves simultaneously observed by ISEE and UKS. *J. Geophys. Res.*, vol. 92, 7354-7362.

SMITH, M. F. 1986. AMPTE observations of steady-state reconnection. *Adv. Space Res.*, vol. 6, no. 1, 103.

SMITH, M. F., RODGERS, D. J., COATES, A. J., JOHNSTONE, A. D. (with Rijnbeek R. P. and Southwood D. J.) 1986. Plasma and field observations with high time resolution in flux transfer events. In *AGU monograph on solar wind/magnetospheric coupling*, 321.

SOMERVILLE, W. B. 1987. Observations of molecules in diffuse clouds. In *Astrochemistry. Proc. IAU Symp. 120, Goa, India, December 1985.* 133-134. M. S. Vardya and S. P. Tarafar (editors). (Dordrecht: Reidel).

STOREY, P. G., CLEGG, R. E. S. (with Harrington, J. P.) 1986. Ne III charge-exchange lines in the planetary nebula NGC 3918. *Mon. Not. R. astr. Soc.*, vol. 221, 61-67.

STOREY, P. J. (with Nüssbaumer, H.) 1987. Dielectronic recombination at low temperatures. IV. Recombination coefficients for neon. *Astron, Astrophys. Suppl. Ser.*, vol. 69, 123-133.

STOREY, P. J. (with Hammer, D. G.) 1987. Recombination-line intensities for hydrogenic ions I: Case B calculations for HI and He II. *Mon. Not. R. astr. Soc.*, vol. 224, 801-820.

TENNYSON, J. 1986. TRIATOM, SELECT and ROTLEV - for the calculation of ro-vibrational levels of triatomic molecules. *Computer Phys. Comms.*, vol. 42, 257-270.

TENNYSON, J. 1986. The calculation of vibration-rotation energies of triatomic molecules using scattering coordinates. *Computer Physics Reports*, vol. 4, 1-36.

TENNYSON, J. (with Sutcliffe, B. T.) 1986. The construction and fitting of molecular potential energy surfaces and their use in vibration-rotation calculations. *Intern. J. Quantum Chem.*, vol. S20, 507-520.

TENNYSON, J. (with Sutcliffe, B. T.) 1986. Highly rotationally excited states of floppy molecules: H_2D^+ with $J < 20$. *Mol. Phys.*, vol. 58, 1067-1085.

TENNYSON, J. (with Sutcliffe, B. T.) 1986. A generalised approach to the calculation of ro-vibrational spectra of triatomic molecules. *Mol. Phys.*, vol. 58, 1053-1066.

TENNYSON, J. (with Sutcliffe, B. T.)1986. The infrared spectra of H_3^+ and its isotopmers - a challenge to theory and experiment. *J. Chem. Soc. Faraday Trans. 2*, vol. 82, 1151-1162.

TENNYSON, J. (with Noble, C. J.) 1986. Low-energy electron scattering by the NO molecule. *J. Phys. B.*, vol. 19, 4025-4033.

TENNYSON, J. 1986. Low energy, elastic postron molecule collision using the R-matrix method: e^+-H_2 and e^+-N_2 scattering. *J. Phys. B.*, vol. 19, 4255-4263.

TENNYSON, J. (with Sutcliffe, B. T.) 1987. Understanding floppy molecules. In *Understanding molecular properties*, 449-463. J. Avery et al (editor). (Dordrecht: Reidel).

WAGGETT, P. W. (and others) 1986. Chapter 6 - Coronal mass ejections and coronal structures, *Proc. Solar Maximum Mission Flare Workshop - Energetic Phenomena on the Sun.* M. R. Kundu and B. E. Woodgate (editors). (NASA CP 2439), 6.1-6.71.

WAGGETT, P., BENTLEY, R. (and others) 1986. Chapter 1 - Preflare activity. *Ibid.*, 1.1-1.79.

WALKER, D. D., DIEGO, F., CHARALAMBOUS, A., HIRST, C. J., FISH, A. C. 1986. High resolution échelle spectrographs for the Anglo-Australian Telescope coude focus and William Herschel Telescope Nasmyth focus. *Instrumentation in Astronomy VI*, SPIE, vol. 627, 291. (March 1986 Tucson, Arizona), (Crawford, D. L. Chairman and Editor).

WELLS, J. 1986. Inclusive $\Sigma^+(1385)$ Production in K^-p Interactions at 110 GeV/c. *Z. Phys.*, C.31, 409.

WELLS, J. 1986. Inclusive Ø Production in K^-p Interactions at 110 GeV/c and Search for Structure in $Ø\pi^-$. *Z. Phys.*, C.31, 401.

WELLS, J. 1986. Preliminary Results on High Transverse Momentum Prompt Photon and Production by and on protons at 280 GeV. *Presented at XXIII Int. Conf. on HEP Berkeley.*

WELLS, J. 1986. Inclusive P^0 Production in $\bar{\nu}\mu\varrho$ Charged Current Interactions. *Nucl. Phys. B.*, vol. 272, 253.

WHELAN, C. T. 1986. Cross-sections for electron-hydrogen collisions in the Born approximation to the reactance matrix. *J. Phys. B.*, vol. 19, 2355-2363.

WHELAN, C. T. 1986. On the Bethe approximation of the reactance matrix. *J. Phys. B.*, vol. 19, 2343-2354.

WHELAN, C. T. (with McDowell, M. R. C. and Edmunds, P. W.) 1987. Electron impact excitation of atomic hydrogen. *J. Phys. B.*, vol. 20, 1587-1598.

WHELAN, C. T. (with Piraux, B.) 1987. The convergance in L of the partial wave expansion for electron-neutral atom collisions. *Physics Letters A.*, vol. 122, 126-128.

WHELAN, C. T. (with Piraux, B.) 1987. Some remarks on the calculations of Born partialwave integrals. *Math. Proc. Camb. Phil. Soc.*, vol. 20, 375-381.

WHITMORE, B., CAMERON, D. H. M. (with Warren-Smith, R. F.) 1987. Filtered CCD images of Southern Herbig-Haro objects. In *Circumstellar Matter,* 189-190. I. Appenzeller and C. Jordan (editors). *Proc. IAU Symp. 122, Heidelberg, June 1986.* (Dordrecht: Reidel).

WILKIN, C. 1986. On the Modified Variable Phase Equation. In *Coherence, Cooperation and Fluctuations (The Glauber Festschrift),* 95-103. F. Haake, M. Narducci and D. Walls (editors). (Cambridge: Cambridge University Press).

WILKIN, C. (and others) 1986. Deuteron Tensor Analysing Power for the Collinear $\vec{d}p \rightarrow {}^3He\pi^0$ Reaction at intermediate Energies. *Physics Letters,* vol. 181B, 28-32.

WILKIN, C. (with Germond, J. F.) 1986. Fast Deutron Production Following Pion Absorption in ^4He. *J. Phys. G.*, vol. 12, 1379-1387.

WILKIN, C. 1987. Why Measure Spin Dependence? *Proc. of the 4th Journées d'Etudes Saturne,* 103-114. P. Radvanyi (editor).

WILKIN, C. (with Bugg, D. V.) 1987. Polarisation in the (d,2p) Reaction at Intermediate Energies. *Nuclear Physics,* vol. A467, 575-612.

WILLIS, A. J. (with Nandy, K. and Morgan, D. H.) 1986. The exciting stars of very low excitation compact nebulae in the LMC. In *New Insights in Astrophysics,* 323-326. UCL, July 1986. (Noordwijk: ESA SP-263).

WILLIS, A. J. (with Ratcliffe, M. and Pollock, A. M. T.) 1986. Ultraviolet contiuum variations in Sco X-1, *Ibid.*, 463-466.

WILLIS, A. J. HOWARTH, I. D. (with Strickland, D. J., Lloyd, C. and Pike, C. D.) 1986. Tidally induced mass loss in Iota Orionis. *Ibid.*, 487-490.

WILLIS, A. J. (with Ford, G.. Stickland, D. J. and Lloyd, C.) 1986. CV Serpentis: C III in the optical and UV. *Ibid.*, 505-508.

WILLIS, A. J. (with Stickland, D. J.) 1986. High resolution IUE observations of HD 62910 WN6-C4. *Ibid.*, 339-342.

WILLIS, A. J. (with Stickland, D. G.) 1986. Gross UV spectral variations in HD 45116, qWR+B8V. *Ibid.*, 335-338.

WILLIS, A. J. (with Garmany, C. D.) 1987. Wolf-Rayet stars. In *Exploring the Universe with IUE*, 157-182. Y. Kondo et al (editor). (Dordrecht: Reidel).

WILSON, R. (with Boggess, A.) 1987. The history of IUE. In *Exploring the Universe with IUE*, 3-19. Y. Kondo et al (editor). (Dordrecht: Reidel).

WINGHAM, D. J. (with Pace, N. G. and Ceen, R. V.) 1986. An experimental study of the penetration of a water-sediment interface by a parametric beam. *J. Acoust. Soc. Am.*, vol. 792, 363.

WINGHAM, D. J. 1986. An Automatic tracking mode switching algorithm for the ERS-1 altimiter. *Proc. IGARSS Symp., Zurich*. ESA SP-254, 185.

WINGHAM, D. J. 1985. The dispersion of sound in sediment. *J. Acous. Soc. Am.*, vol. 78, no. 5, 1757.

WINGHAM D. J. 1986. An automatic tracking mode switching algorithm for the ERS-1 altimeter. In *Proc. IEEE Geosci. Symp. on Remote Sensing, Zurich, 8-11 September 1986*, 185. T. D. Guyenne and J. J. Hunt (editors). (ESA Sci. and Tech. Pubs Branch, Noordwijk).

WINGHAM, D. J., RAPLEY, C. G. (with Griffiths, H.) 1986. New techniques in satellite altimeter tracking systems. *Ibid.*, 1339.

WOOD, A. M. 1986. Higher level operations using processor arrays. In *Evaluation of Multicomputers for Image Processing*, 91-105. L. Uhr, K. Preston Jr, S. Levialdi and M. J. B. Duff (editors). (Orlando: Academic Press Inc.).

WRENN, G. L., JOHNSTONE, A. D. 1987. *Proc. AGARD Conf. No. 406, The aerospace environment at high altitudes and its implications for spacecraft charging and communications*, 15.1-15.14.

PSYCHOLOGY

ANDERSON, M. 1986. Inspection time and IQ in young children. *Person. Individ. Diff.*, vol. 7, no. 5, 677-686.

ANDERSON, M. 1986. Annotation. Understanding the cognitive deficit in mental retardation. *J. Child Psychol. Psychiat.*, vol. 27, no. 3, 297-306.

ANDERSON, M. (with Lough, S.) 1986. A psychological framework for neurorehabilitation. *Psychiotherapy Practice*, vol. 2, 74-82.

ANDERSON, M. (with Pitcairn, T.) 1986. Motor control in dart throwing. *Human Movement Science*, vol. 5, 1-18.

BAINBRIDGE, L. 1987. VDT/VDU Interfaces for Process Control. In *New Methods in Applied Ergonomics*, 97-105. J. R. Wilson, E. N. Corlett and L. Manenica (editors). (London: Taylor & Francis).

BAINBRIDGE, L. 1986. Asking Questions and Accessing Knowledge. *Future Computing Systems*, vol. 1, 143-149.

BUTTERWORTH, B., HOWARD, D. (with Cambell, R.) 1986. The uses of short-term memory. *Quarterly J. Exp. Psychol.*, vol. 38a, 705-737.

BUTTERWORTH, B., HOWARD, D. 1987. Paragrammatisms. *Cognition*, vol. 26, 1-37.

BUTTERWORTH, B. (with Verdecchia, E.) 1987. Ron, dove hai la testa? *Panorama*, vol. 1082, 88.

CROMER, R. F. 1986. A longitudinal study of educationally subnormal children and their acquisition of a complex linguistic structure. In *Science and Service in Mental Retardation*, 197-204. J. M. Berg (editor). (London: Methuen).

CROMER, R. F. 1986. Review E. Wanner and L. R. Gleitman. *Language Acquisition: the State of the Art. Br. J. Develop. Psychol.*, vol. 4, 301-304.

DAVIES, C., STANFORD, C., STEINBERG, H., SYKES, E. A., TERRY, P. 1987. Clenbuterol/chlordiazepoxide induced backward walking in mice is modified by mild stress. *Brit. J. Pharmac. Proc. Supp.*, vol. 90, 119.

DIXON, N. F., HENLEY, S. H. A. 1986. Personality factors and subliminal perception. In *The Roots of Perception*, 39-47. U. Hentschel, G. Smith and J. G. Draguns (editors). (N. Holland: Elsevier).

DIXON, N. F. 1987. Unconsciousness reconsidered. *J. Canad. Psychol.*, vol. 28(2), 118-119.

DIXON, N. F. 1987. On private events and brain events. *Behav. & Brain Sci.*, vol. 9, no. 1, 29-30.

FURNHAM, A. (editor) 1986. *Social Behaivour and Context.* (Boston: Allyn and Bacon) 315 pp.

FURNHAM, A., BOCHNER, S. 1986. *Culture Shock: Psychological Reactions to Unfamiliar Environments.* (London: Methuen.) 298 pp.

FURNHAM, A. 1986. Book reviews as a selection tool for libraries. *Collection Management*, vol. 8, 33-43.

FURNHAM, A. 1986. Social skills training with adolescents and young adults. In *Handbook of Social Skills Training*, 33-57. C. Hollin and P. Trower (editors). (Oxford: Pergamon).

FURNHAM, A. 1987. The social psychology of working situations. In *Psychophysiology and the Electronic Workplace*, 89-111. A. Gale and B. Christie (editors). (Chichester: Wiley).

FURNHAM, A. 1986. Popular interest in psychological findings. *Am. Psychol.*, vol. 41, 922-924.

FURNHAM, A. (with Zacherl, M.) 1986. Personality and Job Satisfaction. *Personality and Individual Differences*, vol. 7, 453-459.

FURNHAM, A. (with Schofield, S.) 1986. Sex-role stereotyping in British radio advertisements. *Brit. J. of Soc. Psychol.*, vol. 25, 165-171.

FURNHAM, A. 1986. Career attitudes of pre-clinical medical students to the medical specialities. *Med. Educ.*, vol. 20, 286-300.

FURNHAM, A. 1986. Attitudes to the medical specialities. Comparing pre-clinical students' of nine specialities. *Soc. Sci. and Med.*, vol. 23, 587-594.

FURNHAM, A. 1986. Explanations for immigration to, and emigration from, Britain. *New Community*, vol. 8, 65-78.

FURNHAM, A. 1986. Assertiveness through different media. *J. of lang. and Soc. Psychol.*, vol. 5, 1-11.

FURNHAM, A. (with Gunter, B.) 1986. Sex and personality differences in recall of violent and non-violent news from three presentation modalities. *Personality and Individual Differences*, vol. 7, 829-837.

FURNHAM, A. (with Bond, M.) 1986. Hong Kong Chinese Explanations for wealth. *J. of Econ. Psychol.*, vol. 7, 447-460.

FURNHAM, A. 1986. Children's understanding of the economic world. *Australian J. of Educ.*, vol. 30, 219-240.

FURNHAM, A. 1986. Medical students' beliefs about nine different specialities. *Brit. Med. J.*, vol. 293, 1607-1610.

FURNHAM, A. 1986. Social desirability of type A behaviour pattern. *Psychol. Med.*, vol. 16, 805-811.

FURNHAM, A., HENLEY, S. H. A. (with Borovoy, A.) 1986. Type A behaviour pattern: the recall of positive personality and self-evaluation. *Brit. J. of Med. Psychol.*, vol. 59, 365-374.

FURNHAM, A. 1986. The robustness of the recency effect: Studies using legal evidence. *J. of Gen. Psychol.*, vol. 113, 351-357.

FURNHAM, A. (with Singh, A.) 1986. Memory for information about sex differences. *Sex Roles*, vol. 15, 479-486.

FURNHAM, A. (with Goddard, L.) 1986. Sex differences in job satisfaction. *Psychologia*, vol. 29, 132-146.

FURNHAM, A. (with Gunter, B. and Leese, J.) 1986. Memory for information from a party political broadcast as a function of the channel of communication. *Social Behav.*, vol. 1, 135-142.

FURNHAM, A. 1987. The structure of economic beliefs. *Personality and Individual Differences*, vol. 8, 253-260.

FURNHAM, A. (with Gunter, B.) 1987. Graphology and Personality; Another failure to validate graphological analysis. *Ibid.*, 433-435.

FURNHAM, A. (with Jones, S.) 1987. Children's views regarding possessions and their theft. *J. of Moral Educ.*, vol. 16, 18-30.

FURNHAM, A. (with Craig, S.) 1987. Fakeability and correlates of the Perception and Preference Inventory. *Personality and Individual Differences*, vol. 4, 459-470.

FURNHAM, A. (with Williams, C.) 1987. Remembering commercials presented in different media. *J. Educ. Television*, vol. 13, 115-124.

FURNHAM, A. (with Pervin, L.) 1987. Goal-based and situation-based expectations of behaviour. *European J. of Personality*, vol. 1, 37-44.

FURNHAM, A. (with Gunter, B.) 1987. Young people's political knowledge. *Educ. Studies*, vol. 13, 91-104.

FURNHAM, A. (with Payne, M.) 1987. Dimensions of occupational stress in West Indian secondary school teachers. *Brit. J. of Educ. Psychol.*, vol. 57, 141-150.

GREEN, D. W., COLBERT, M., LONG, J. 1987. Towards a transaction approach to knowledge-based system development. In *Proc. 3rd International Expert Systems Conference, London, 2-4 June 1987.* (Oxford and New Jersey: Learned Information Ltd.), 207-213.

GREEN, D. W. 1986. Writing, jargon and research. *Written Communication*, vol. 3, 364-381.

GREER, K. L., HARVEY, N. J. W. 1987. Pain induced by nerve compression blocks affects voluntary movement and assessment of peripheral nerve ischaemia. *Human Movement Science*, vol. 6, 17-36.

HARVEY, N. (with Garwood, J. and Palencia, M.) 1987. Vocal matching of pitch intervals: learning and transfer effects. *Psychology of Music*, vol. 15, 90-106.

HENLEY, S. H. A. et al. 1986. A new projective test: the Caine/Marteau/Dympna test. *Brit. J. of Med. Psychol.*, vol. 59, no. 2, 157-164.

HENLEY, S. H. A. 1986. Perceptual defence: A paradigm for investigating psychopathology? In *The Roots of Perception*, 93-101. U. Hentschel, G. W. Smith, J. G. Draguns (editors). (North Holland: Elsevir).

HENLEY, S. H. A. (with Dixon, N. F.) 1986. Personality factors and subliminal perception. *Ibid.*, 39-47.

HENLEY, S. H. A. 1987. Agression. In *Dictionary of Pastoral Care*, 10-11. A. V. Campbell (editor). (London: SPCK).

HENLEY, S. H. A. 1987. Consciousness. *Ibid.*, 49-50.

HENLEY, S. H. A. 1987. Maturity. *Ibid.*, 156-157.

HENLEY, S. H. A., FURNHAM, A. F. (with Borovoy, A.) 1987. Type of behaviour pattern, the recall of positive personality information, and self evaluation. *Brit. J. of Med. Psychol.*, vol. 59, no. 4, 365-374.

HOWELL, P. (with Marchbanks, R. J. and El-Yaniv, N.) 1986. Middle ear muscle activity during vocalisation in normal speakers and stutterers. *Acta Otolaryngol.*, vol. 102, 396-402.

HOWELL, P., WILLIAMS, M. (with Vause, L.) 1987. Acoustic analysis of repititions in stutterers' speech. In *Speech Motor Dynamics in Stuttering*, 371-379. H. Peters and W. Hulstijn (editors). (New York: Springer).

HOWELL, P. (with El-Yaniv, N. and Powell, D. J.) 1987. Factors affecting fluency in stutterers when speaking under altered auditory feedback. *Ibid.*, 371-374.

HOWELL, P. (with Rosen, S.) 1987. Auditory, articulatory and learned factors in categorical perception. In *Categorical Perception*, 113-160. S. Harnad (editor). (New York: Cambridge University Press).

HOWARD, D. (with Hatfield, F. M.) 1987. *Aphasia therapy; historical and contemporary issues*. (London: Lawrence Erlbaum Associates). 192 pp.

HOWARD, D. 1987. Reading without letters? In *The cognitive neuropsychology of language*, 27-53. M. Colheart, G. Sartori, R. Job (editors). (London: Lawrence Erlbaum Associates).

JANMAN, K. (with Jones, J., Payne, R. L. and Rick, J. T.) 1987. Some determinants of stress in psychiatric nurses. *Int. J. of Nursing Studies*, vol. 24, 129-144.

KARMILOFF-SMITH, A. 1986. Some fundamental aspects of language development after age 5. In *Language Acquisition* (2nd edition), 455-474. P. Fletcher and M. Garman (editors). (London: C.U.P.).

KARMILOFF-SMITH, A. 1986. From meta-processes to conscious access evidence from children's metalinguistic and repair data. *Cognition*, vol. 23, 95-147.

LESLIE, A. 1986. Getting development off the ground. In *Theory Building in Developmental Psychology*, Chapter 12, 405-437. P. L. C. van Geert (editor). (Amsterdam: North Holland).

LESLIE, A. M., FRITH, U. (with Baron-Cohen, S.) 1986. Mechanical, behavioural and intentional understanding of picture stories in autistic children. *Br. J. Devel. Psychol.*, vol. 4, 113-125.

LIFE, M. A., LONG, J. 1987. The use of people to simulate machines: an ergonomic approach. In *Contemporary Ergonomics 1987, Swansea, April 1987.* E. D. Megaw (editor). (London and Philadelphia: Taylor and Francis), 117-122.

LONG, J. 1986. People and computers: designing for usability. In *People and Computer: Designing for Usability*, 3-23. M. Harrison and A. Monk (editors), York, September 1986. (Cambridge: Cambridge University Press).

LONG, J. 1987. Information technology and home-based services: improving the usability of teleshopping. In *Information Technology and People*, 211-230. F. Blacklar and D. Oborne (editors). (Leicester: The British Psychological Society).

LONG, J. 1987. A framework for user models. In *Contemporary Ergonomics 1987. Swansea, April 1987.* E. D. Megaw (editor). (London and Philadelphia: Taylor and Francis) 245-250.

MORGAN, M. J. 1986. Positional acuity without monocular cues. *Perception*, vol. 15, 157-162.

MORGAN, M. J. (with Mather, G.) 1986. Irradiation; implications for theories of edge localization. *Vision Res.*, vol. 26, 1007-1015.

MORGAN, M. J. (with Moulden, B.) 1986. The Munsterberg figure and twisted cords. *Ibid.*, 1793-1800.

MORGAN, M. J. 1986. The detection of spatial discontinuities; interactions between contrast and spatial contiguity. *Spatial Vision*, vol. 1, 291-303.

MORGAN, M. J. (with Regan, D.) 1987. Opponent model for line interval discrimination: vernier and interval performance compared. *Vision Res.*, vol. 27, 107-118.

MORTON, J. 1986. Development contingency modelling. In *Theory Building in Developmental Psychology.* Chapter 4, 141-165. P. L. C. van Geert (editor). (Amsterdam: North-Holland).

MORTON, J. (with Bekerian, D.) 1986. Three ways of looking at memory. In *Advances in Cognitive Science.* vol. 1, 43-71. N. E. Sharkey (editor). (Ellis Horwood).

OAKLEY, D. A. (with Goldstein, L. H.) 1986. Colour versus orientation discrimination in severely brain-damaged and normal adults. *Cortex*, vol. 22, 261-266.

OAKLEY, D. A. (with Goldstein, L. H.) 1987. Visual discrimination in the absence of visual cortex. *Behavioural Brain Research*, vol. 24, 181-193.

PEARCE, S. 1986. A biobehavioural approach to chronic pain. In *The Psychosomatic Approach: Contemporary Practice.* M. J. Christie and P. G. Mellett (editors). (Chichester: Wiley and Sons).

PEARCE, S., RICHARDSON, P. 1987. Chronic Pain: Assessment. Chapter 13. In *Handbook of Clinical Psychology.* S. J. E. Lindsay, G. E. Powell (editors). (London: Gower Press).

PEARCE, S., RICHARDSON, P. 1987. Chronic Pain: Psychological Approaches to Management. *Ibid.*, Chapter 34.

PEARCE, S. 1987. Medical Problems of Women. In *Current Issues in Clinical Psychology.* vol. 3, 129-132. (Plenum Press).

PEARCE, S. (with Beard, R. W., Reginald, P.) 1986. Clinical Algorithm: Pelvic Pain in Women. *Brit. Med. J.*, vol. 293, 1160-1162.

PEARCE, S. (with Beard, R. W., Reginald, P.) 1986. Abdominal pelvic pain: Fact or Fiction. *Am. J. Obstet. & Gynaecol.*, vol. 155, 229-232.

PLOTKIN, H C. 1987. The evolutionary analogy in Skinner's writings. In *B. F. Skinner: Consensus and Controversy,* 139-153. S. Modgil and C. Modgil (editors). (Brighton: Falmer Press).

PLOTKIN, H. C. 1987. Spieltheotie, Hierarchietheorie und Evolutionare Erkenntnistheorie. (Game theory, hierarchy theory and evolutionary epsistemology). In *Die Evolutionare Erkenntnistheorie,* 201-216. R. Riedel and F. M. Wuketits (editors). (Verlag: Paul Parey).

PLOTKIN, H. C. 1987. Rising out of the Ashes. *The Behav. & Brain Sci.*, vol. 10, 79-81.

PLOTKIN, H. C. (with Grainger, L. J.) 1987. Cross-fostering and maternal care in Syrian Hamsters. *Animal Technology,* vol. 38, 22-230.

SANDLER, J. 1987. From Safety to Superego. (London: Karnac Books). 348 pp.

SNOWLING, M. (with Stackhouse, J. and Rack, J.) 1986. Phonological dyslexia and dysgraphia: development aspects. *Cog. Neuropsychol.*, vol. 3, 309-339.

SNOWLING, M. (with Pring, L.) 1986. Development changes in children's use of context in word recognition - an information processing analysis. *Q. J. of Exp. Psychol.*, vol. 38A, 395-418.

SNOWLING, M., FRITH, U. 1986. Comprehension in "hyperlexic" readers. *J. of Exp. Child Psychol.*, vol. 42, 392-415.

STEINBERG, H., SYKES, E. A., DAVIES, C. E., STANFORD, S. C. 1987. Developing an animal model for 'Rebound Depression'. *Preclinical strategies in Psychopharmacology, First International Symposium, Paris, January 1987. Abstracts*, no. 19, 15.

STEINBERG, H., SYKES, E. A., McBRIDE, A., TERRY, P. 1987. Ataxia test for mice, using computer analysis. *Ibid.*, no. 20, 15.

STEINBERG, H., WEBSTER, R. A. (with Aylmer, C. G. G.) 1987. Induced by dexamphetamine/chlordiazepoxide mixtures in rats and its attenuation by lithium pretreatment: a role for dopamine? *Psychopharmcology*, vol. 91, 198-206.

SYKES, ELIZABETH A. 1986. Mescaline-induced motor impairment in rats, assessed by two different methods. *Life Sciences*, vol. 39, 1051-1058.

VINCENT, C. A. (with Driscoll, P. A., Wilkinson, M.) 1987. The Use of the Accident and Emergency Department. *Archives of Emergency Medicine*, vol. 4, 77-82.

WHITEFIELD, A. D. 1986. An analysis and comparison of knowledge use in designing with and without CAD. In *Knowledge Engineering and Computer Modelling in CAD - Proceedings of CAD86.* (London: Butterworth), 89-97.

WHITEFIELD, A. D. 1986. Human-computer interaction models and their use in computer system design. In *Proc. of the Third European Conf. of Cognitive Ergonomics - ECCE3, Paris, September 1986.* 185-193.

STATISTICAL SCIENCE

BIRKHEAD, B. G. 1986. The transient solution of the linear birth-death process with random spontaneous mutation. *Mathematical Biosciences*, vol. 82, 193-200.

BIRKHEAD, B. G., JACKSON, R. R. P., SALT, D. 1987. Reliability and consistency of bone marrow assessments in acute myelogeneous leukaemia. *J. Hematological Oncology*, vol. 5, 139-145.

BIRKHEAD, B. G., JACKSON, R. R. P. 1986. Randomised trials: a perspective. In *Randomised Trials in Cancer: A Critical Review by Sites*, 665-675. M. Slevin and P. Staquet (editors). (New York: Raven Press).

BROOKS, R. J. 1987. Optimal allocation for Bayesian inference about an odds ratio. *Biometrika*, vol. 74, 196-199.

BROOKS, R. J. 1987. On the design of comparative lifetime studies. *Communications in Statistics, Theory and Methods*, vol. 16, 1221-1240.

DAWID, A. P. 1986. Probability forecasting. In *Encyclopedia of Statistical Sciences*, vol. 7, 210-218. S. Kotz, N. L. Johnson and C. B. Read (editors). (New York: Wiley Interscience).

DAWID, A. P. 1987. Comments on Glen Shafer *Savage Revisited. Statistical Science*, vol. 1, 488-492.

DONES, L., JACKSON, R. R. P. 1985. The use of mathematical models to monitor the effectiveness of treatments. In *Operational Research Society Annual Conf. 1985 Abstracts. J. Op. Res. Soc.*, vol. 36, 1176-1177.

DONES, L. (and others) 1985. Autologous bone marrow transplantation for lymphoma in Europe. *Exp. Haematol.*, vol. 13, 20-21.

DONNELLY, P. J. 1986. Dual processes in population genetics. In *Stochastic Spatial Processes*, 94-105. P. Tautu (editor). (Berlin: Springer-Verlag).

DONNELLY, P. J. 1986. Partition structures, Polya urns, the Ewens sampling formula, and the ages of alleles. *Theor. Pop. Biology,* vol. 30, 271-288.

GALBRAITH, R. F. 1986. Allocation of grains in the population method of fission track dating. *Nucl. Tracks Radiat. Meas.*, vol. 11, 201-203.

GALBRAITH, R F. 1986. Statistical analysis of C. W. Naeser's Fish Canyon zircon data. *Ibid.*, 295-300.

GREGORY, W. M. (and others) 1986. Treatment of acute lymphoblastic leukaemia in adults. *Brit. J. of Haematology,* vol. 64, 455-468.

GREGORY, W. M. (and others) 1986. Follicular lymphoma: prognostic factors for response and survival. *J. of Clin. Oncology,* vol. 4, 1470-1480.

GREGORY, W. M. (and others) 1987. The relationship between chronic lymophocytic leukaemia and prolymphocytic leukaemia. *Brit. J. of Haematology,* vol. 65, 23-29.

GREGORY, W. M. (and others) 1987. Reproducibility of spin lattice relaxation time(T_1) measurement using an 0.08 Tesla MD 800 magnetic resonance imager. *Brit. J. of Radiology,* vol. 60, 241-244.

GREGORY, W. M. (with others) 1987. Failure to preserve fertility in patients with Hodgkin's disease. *Cancer Chemotherapy and Pharmacology,* vol. 19, 159-162.

ISHAM, V. S. (with D. R. Cox and I. Rodrguez-Iturbe) 1987. Some models for rainfall based on stochastic point processes. *Proc. Roy. Soc. Lond.*, Series A, vol. 410, 269-288.

ISHAM, V. S. 1987. Marked point processes and their correlations. In *Spatial Processes and Spatial Time Series Analysis,* 63-75. F. Droesbeke (editor). (Brussels: Facultés Universitaires Saint Louis).

JACKSON, R. R. P. 1987. Cancer record systems in the evaluation of care. In *Information Technology in Health Care.* Issue 4, 141-150. (Brentford: Kluwer).

NEWMAN, G. B. (with others) 1987. Intravesical chemotherapy. Combination with Tween 80 increases cytoxicity invitro. *Urological Research,* vol. 15, 17-20.

STONE, M. 1986. Comment on the axioms of subjective probability. *Statistical Science,* vol. 1, 356-357.

STONE, M. 1987. *Coordinate-free Multivariate Analysis: an Illustrated Geometric Progression from Halmos to Gauss and Bayes.* Oxford Statistical Science, Series no. 2. (Oxford: Clarendon Press).

ZOOLOGY AND CELL BIOLOGY

ANDO, I., BEVERLEY, P. C. L. 1987. A simple microassay for interleukin-2 activity. *J. Immunol.*, vol. 96, 133-137.

BERRY, R. J. 1986. The People of Orkney. In *The People of Orkney?,* 6-19. R. J. Berry and H. Firth (editors). (Stromness: Orkney Press).

BERRY, R. J. 1987. The theology of DNA. *Anvil,* vol. 4, 39-49.

BERRY, R. J. Where biology meets; or how science advances. *Biol. J. Linn. Soc.*, vol. 30, 257-274.

BERRY, R. J. (with Jakobson, M. E., Peters, J.) 1987. Inherited differences within an island population of the house mouse. *J. Zool. Lond.*, vol. 211, 605-618.

BEVERLEY, P. C. L. (editor). 1986. Clinical and biological studies with monoclonal antibodies. In *Methods in Haematology,* vol. 13, 247-269. (Edinburgh: Churchill Livingstone).

BEVERLEY, P. C. L. 1986. Human Leucocyte subpopulations. In *Handbook of Experimental Immunology,* vol. 2, *Cellular Immunology,* 58.1-58.15. D. M. Weir, L. A. Herzenberg, C. Blackwell (editors). (Oxford: Blackwell Scientific Publications).

BEVERLEY, P. C. L. 1986. Immunology of Cancer. In *Introduction to the Cellular and Molecular Biology of Cancer,* 325-349. L. M. Franks and N. Teich (editors). (Oxford: Oxford University Press).

BEVERLEY, P. C. L. 1986. Monoclonal antibodies to T and B cells in pathology. *Clinical Products,* vol. 5, 34-40.

BEVERLEY, P. C. L. 1987. Human T cell subsets. *Immunol. letters,* vol. 14, 263-267.

BEVERLEY, P. C. L. (with Sattentau, Q. J.) 1987. Immunology of AIDS. *Brit. Med. J.,* vol. 294, 1536-1538.

BEVERLEY, P. C. L. (with Sattentau, Q. J., Dalgleish, A. G., Weiss, R. A.) 1986. Epitopes of the CD4 antigen and HIV infection. *Science,* vol. 234, 1120-1123.

BEVERLEY, P. C. L., TERRY, L. (with Pickford, A.) 1986. T Cell Subsets and Function. In *Progress in Immunology VI,* 941-948. B. Cinader and Richard G. Miller (editors). (Orlando: Academic Press).

CHAIN, B. M., McCAFFERTY, I., WALLACE, G., ASKENASE, P. W. 1987. Improvement of the *in vitro* T cell proliferation assay by a modified method that separates the antigen recognition and Il-2-dependent steps. *J. Immunol. Methods,* vol. 99, 221-228.

CHAIN, B. M., LONDEI, M., FELDMANN, M. 1987. Biochemical and cellular questions in antigen processing. *Ann. Inst. Pasteur,* vol. 137D, 196-199.

CLOUDSLEY-THOMPSON, J. L. 1986. Foreword. In *Sand Harvest* (The Organisers Manual), 4-5. (Harlow, Essex: Longman Micro Software and Centre for World Development Education (E.W.D.E.)).

CLOUDSLEY-THOMPSON, J. L. 1986. Foreword. In *Combating Desertification in Developing Countries,* v-viii. J. K. Jain (editor). *Scientific Reviews on Arid Zone Research,* vol. 4.

CLOUDSLEY-THOMPSON, J. L. 1986. Domesticated animals of the desert. *Farm Animals,* vol. 1, 9-14.

CLOUDSLEY-THOMPSON, J. L. 1986. Nocturnal pollination in arid and semi-arid lands. *Scientific reviews on Arid Zone Research,* vol. 3, 61-65.

CLOUDSLEY-THOMPSON, J. L. 1986. Panel Meeting on the Postgraduate Programme of Desert and Arid-Zone Sciences in the Arabian Gulf University, held in Bahrain, 8-10 February 1986. *Environmental Conservation,* vol. 13, 85.

CLOUDSLEY-THOMPSON, J. L. 1986. Photoperiodic timing mechanisms in spiders. *British Arachnological Society Newsletter,* no. 46, 6-7.

CLOUDSLEY-THOMPSON, J. L. 1986. Aggregation by male *Penulus pallipes* (Panzer) (Hym., Sphecidae) at night. *Entomologist's Monthly Magazine,* vol. 122, 126.

CLOUDSLEY-THOMPSON, J. L. 1986. The mythology of scorpions and spiders. *Acta X Congreso Internacional de Aracnologia* (Jaca, Espana, 1986), vol. 1, 13-16.

CLOUDSLEY-THOMPSON, J. L. 1986. A mass emergence of Embioptera in Qatar. *Entomologist's Gazette,* vol. 37, 180.

CLOUDSLEY-THOMPSON, J. L. 1986. Desert adaptations in arachnids. *Proc. of the IX International Conference of Arachnology, Panama, 1983,* 29-32.

CLOUDSLEY-THOMPSON, J. L. 1986. Tenth International Congress of Arachnology held at Jaca (Huesca Province), Spain, 2-7 September 1987. *Environmental Conservation,* vol. 13, 287-288.

CLOUDSLEY-THOMPSON, J. L. 1986. Review of H. Walter and S-W. Breckle *Ecological systems of the Geobiosphere. I. Ecological Principles in Global Perspective.* G. Griber (translator). *J. of Arid Environments,* vol. 10, 243.

CLOUDSLEY-THOMPSON, J. L. 1986. Review of C. H. Southwick (editor) *Global Ecology. J. of Applied Ecology,* vol. 23, 722-723.

CLOUDSLEY-THOMPSON, J. L. 1986. Review of W. A. Shear (editor) *Spiders: Webs, behaviour and evolution. Nature,* vol. 324, 420.

CLOUDSLEY-THOMPSON, J. L. 1986. Review of W. Ross Cockrill (editor) *The Camelid: and all-purpose animal. Africa,* vol. 56, 254.

CLOUDSLEY-THOMPSON, J. L. 1986. Review of the North-South Dialogue, held in University College, Oxford, England, during 19-22 September 1986. Oxford International Symposium. *Environmental Conservation,* vol. 13, 288-289.

CLOUDSLEY-THOMPSON, J. L. 1986. Review of E. R. Pianka *Ecology and Natural History of Desert Lizards: Analyses of the ecological niches and community structure.* Princeton, New Jersey. *J. of Biogeography,* vol. 13, 594-595.

CLOUDSLEY-THOMPSON, J. L. 1987. How to begin the study of spiders. (Richmond, Surrey: Richmond Publishing Company in conjunction with British Naturalists' Association). 34 pp. illustrated.

CLOUDSLEY-THOMPSON, J. L. 1987. The biorhythms of spiders. In *Ecophysiology of Spiders,* 371-379. W. Nentwig (editor). (Berlin: Springer-Verlag).

CLOUDSLEY-THOMPSON, J. L. 1987. Desert Reptiles. In *Handbook on the Membrane of Reptiles in Captivity,* 33-36. K. R. G. Welch (editor). (Malabar, Florida: Robert E. Krieger Publishing Co.).

CLOUDSLEY-THOMPSON, J. L. 1987. The fauna of sand dunes at Alvor (Portugal) and Lanzarote (Canary Isles). *Entomologist's Record,* vol. 99, 35-36.

CLOUDSLEY-THOMPSON, J. L. 1987. The use by insects of adventitious materials for protection. *Antenna,* vol. 11, 4-5.

CLOUDSLEY-THOMPSON, J. L. 1987. Bionomics of the rock gecko *Cyrtodactylus scaber* in Qatar. *Herpetological J.,* vol. 1, 156-157.

CLOUDSLEY-THOMPSON, J. L. 1987. Review of E. K. Urban, C. H. Fry and S. Keith (editors) *Birds of Africa. Vol. II. J. of Arid Environments,* vol. 12, 84-85.

CLOUDSLEY-THOMPSON, J. L. 1987. Review of W. Büttiker and F. Krupp (editors) *Fauna of Saudi Arabia. Vol. 7. J. of Arid Environments,* vol. 12, 187-188.

CLOUDSLEY-THOMPSON, J. L. 1987. Review of A. Knystautas *The Natural History of the USSR. Geographical Magazine,* vol. 59, 315-316.

CLOUDSLEY-THOMPSON, J. L. (with Constantinou, C.) 1986. Supercooling in the various instars of the mealworm beetle *tenebrio molitor* l. *J. Nat. Hist.,* vol. 20, 649-651.

COHEN, J. (with Levi, G., Gallo, V., Wilkin, G. P.) 1986. Astrocyte subpopulations and glial precursors in rat cerebellar cell cultures. *Advances in the Biosciences,* vol. 61, 21-30.

COHEN, J., BURNE, J. F. (with Winter, J., Bartlett, P.) 1986. Retinal ganglion cells lose response to laminin with maturation. *Nature,* vol. 322, 465-467.

COHEN, J., BURNE, J. F., McKINLAY, C. (with Winter, J.) 1987. The role of laminin and the laminin/fibronectin receptor complex in the outgrowth of retinal ganglion cell axons. *Dev. Biol.,* vol. 122.

DUNNE, J., OWEN, M. J. (with Sewell, W. A., Brown, M. H., Crumpton, M. J.) 1986. Molecular cloning of the human T lymphocyte surface CD2 (T11) antigen. *Proc. Natl. Acad. Sci. U.S.A.,* vol. 83, 8718-8722.

FISHER, R. C. (and others) 1986. The modelling and management of the internationally important wetland at Garack El Ichkeul, Tunisia. In *IWRB Special Publication no. 4,* 121 pp. G. E. Hollis (editor). (Slimbridge, UK).

FISHER, R. C. 1987. Planning for the managment of wildlife reserves. *Proc. 1st Symposium on Wildlife Conservation in Saudi Arabia,* Riyadh, Saudi Arabia, February 1987, 48-49.

FULTON, B. P. 1986. Postnatal changes in active membrane properties of rat dorsal root ganglion neurones. *Proc. Physiol. Soc.*, vol. 377, 80.

FULTON, B. P. 1986. Motoneurone activity in an isolated spinal cord preparation from the adult mouse. *Neurosci. Letters,* vol. 71, 175-180.

FULTON, B. P. 1987. Postnatal changes in conduction velocity and soma action potential parameters of rat dorsal root ganglion neurones. *Neurosci. Letters,* vol. 73, 125-130.

GOLAY, J. T. 1986. Functional B-Lymphocyte surface antigens. *Immunology,* vol. 56, 1-5.

JANZER, R. C., RAFF, M. C. 1987. Astrocytes induce blood-brain barrier properties in endothelial cells. *Nature,* vol. 325, 253-257.

JOHN, S., OWEN, M. J. (with So, A., Bailey, C.) 1987. A new polymorphic marker of the T-cell antigen receptor α chain genes in man. *Immunogenetics,* vol. 25, 141-144.

KARDAMAKIS, D., BERRY, R. J. 1987. Low-dose total-body irradiation in the management of refractory rheumatoid arthritis. *Brit. J. Rad.*, vol. 60, 297-299.

KERMACK, K. A., LEES, P. M., MUSSETT, F. (with Lee, A. J.) 1987. A new docodont from the Forest Marble. *Zool. J. Linn. Soc.*, vol. 89, 1-39.

KEMP, L. M., LATCHMAN, D. S. (with Preston, C. M., Preston, V. G.) 1986. Cellular gene induction during herpes simplex virus infection can occur without viral protein synthesis. *Nucleic Acids Res.*, vol. 14, 9261-9270.

KEMP, L. M., LA THANGUE, N. B., LATCHMAN, D. S. (with Bricknell, P. M.) 1986. Transcriptional induction of cellular gene expression during lythic infection with herpes simplex virus. *Bioscience Reports,* vol. 6, 945-951.

KING, C. A., DE ZOUCHE, C. 1986. Bead translocation by and motility of gliding unicells. *J. Cell. Biol.*, vol. 103, 282a.

KINNON, C., OWEN, M. J. 1986. The synthesis and expression of HLA-A and -B antigens in Xenopus laevis oocytes. *Mol. Immunol.*, vol. 23, 525-532.

LATCHMAN, D. S. 1987. Herpes infection and AIDS. *Nature*, vol. 325, 487.

LATCHMAN, D. S. (with Brickell, P. M.) 1986. An improved method for the isolation of high yields of bacteriophage lamda DNA. *Nucleic Acids Res.*, vol. 14, 9220.

MITCHISON, N. A. (1986). T cell proliferation and differentiation. In *Paradoxes in Immunology,* 171-172. G. W. Hoffman, J. G. Levy, G. T. Nepom (editors). (CRC Press).

MITCHISON, N. A. 1986. Commentary on L. Sikora and J. G. Levy *The Isogenic barrier revisited: cell dose effects and loss of MHC control of responses. Ibid.*, 230.

MITCHISON, N. A. 1986. Commentary on E. Diener and A. Waters *Immunological Quiescence towards self: rethinking and paradigm of clonal abortion. Ibid.*, 41.

MITCHISON, N. A. 1986. Commentary on P. C. Doherty *The one receptor model and T-cells with high affinity for nonself other than alloantigens. Ibid.*, 53.

MITCHISON, N. A. 1986. The lessons to take home. In *Immunology of Leprosy,* 305-308. M. Harboe (editor). *Lepr. Review,* vol. 57, suppl. 2.

MITCHISON, N. A. 1986. Rational Vaccine Design: Opportunities offered by Molecular Genetics. In *Immunological Approaches to Contraception and Promotion of Fertility,* 71-75. G. P. Talwar (editor). (New York: Plenum Publ.).

MITCHISON, N. A. 1986. Commentary on the review by Dr. E. Simpson: T and B Lymphocytes: Two repertoires or one? *Immunol. Letters,* vol. 12, 192.

MITCHISON, N. A., OLIVEIRA, D. B G. 1986. Epirestriction and a specialized subset of T helper cells are key factors in the regulation of T suppressor cells. In *Progress in Immunology VI,* 326-334. B. Cinader and Richard G. Miller (editors). (New York: Academic Press Inc.).

MITCHISON, N. A., OLIVEIRA, D. B. G. 1986. Chronic infection as a major force in the evolution of the suppressor T cell system. *Parasitology Today,* vol. 2, 312-313.

MITCHISON, N. A., RATCLIFFE, M. J. H. 1986. B-cells can be activated in more than one way. In *Paradoxes in Immunology,* 163-168. G. W. Hoffman, J. G. Levy and G. T. Nepom (editors). (CRC Press).

NARDI, N. B. 1986. Role of suppressor cells in non-MHC -linked genetic control of the antibody response to F antigen. *Rev. Brasil. Genet. IX,* vol. 2, 245-259 *(Brazil J. Genetics).*

NEW, H. V., MUDGE, A. W. 1986. Calcitonin gene-related peptide regulates muscle acetylcholine receptor synthesis. *Nature,* vol. 323, 809-811.

O'DELL, D. S. (with Williams, D. J.) 1987. Purification of the major ricin-120 binding proteins of rat spleen by preparative gel electrophoresis. *Trans. Biochem. Soc.,* vol. 15, 537.

OLIVEIRA, D. B. G., VINDLACHERUVU, S. 1987. The phylogenetic distribution of the liver protein F antigen. *Comp. Biochem. and Physiol.,* vol. 87B, no. 1, 87 -90.

OWEN, M. J. (with Krissansen, G. W., Verbi, W., Crumpton, M. J.) 1986. Primary structure of the T3 γ subunit of the T3/T cell antigen receptor complex deduced from cDNA sequences: evolution of the γ and δ subunits. *EMBO,* vol. 5, 1799-1808.

RICHARDSON, W. D. (and others) 1986. Amino acid sequences able to confer nuclear location. In *Nucleocytoplasmic Transport,* 185-198. R. Peters and M. Trendelenburg (editors). (Berlin, Heidelberg: Springer-Verlag).

RICHARDSON, W. D. (with Colledge, W. H., Edge, M. D., Smith, A. E.) 1986. Extensive mutagenesis of the nuclear location signal of Simian Virus 40 large-T antigen. *Mol. Cell Biol.,* vol. 6, 4136-4139.

RICHARDSON, W. D. (with Roberts, B. L., Smith, A. E.) 1987. The effect of protein context on nuclear location signal function. *Cell,* vol. 50, 465-475.

ROWE, D., BEVERLEY, P. C. L. (with Isenberg, D. A., Shearer, M., Novick, D.) 1986. Localization of interferons and interleukin 2 in polymyositis and muscular dystrophy. *Clin. exp. Immunol.,* vol. 63, 450-458.

SALGAME, P. R., MITCHISON, N. A. (with Colston, M. J.) 1986. Murine T-cell reactivity to cloned *Mycobacterium leprae* antigens. In *Immunology of Leprosy,* 301-304. M. Harboe (editor). *Lepr. Rev.,* vol. 57, suppl. 2.

SMALL, R. K. (with Riddle, P., Noble, M.) 1987. Evidence for migration of oligodendrocyte-type-2 astorocyte porgenitor cells into the developing rat optic nerve. *Nature,* vol. 328, 155-157.

SMITH, L. 1987. $CD4^+$ murine T cells develop $CD8^+$ precursors *in vivo. Nature,* vol. 326, 798-800.

SMITH, S. H., BEVERLEY, P. C. L. (with Norton, A. J., Ramsay, A. D., Isaacson, P. G.) 1986. A monoclonal antibody (UCHL1) that recognises normal andneoplastic T cells in routinely fixed tissues. *J. Clin. Path.,* vol. 39, 399-405.

WALLACE, D. L., O'FLYNN, K. (with Linch, D. C.) 1987. Signal transduction in human T lymphocytes. *Immunol. Rev.,* vol. 95, 137-159.

WHITEAR, M. (with Mittal, A. K.) 1986. Structure of the skin of *Agonous cataphractus* (Teleostei). *J. Zool., Lond. (A),* vol. 210, 551-574.

WHITEAR, M. (with Best, A. C. G.) 1987. Epidermal tags in clupeid fishes. *J. mar. biol. Ass. U.K.,* vol. 67, 135-143.

WILLIAMS, G. T., KINGSTON, R., OWEN, M. J., JENKINSON, E., OWEN, J. J. T. 1986. A single micromanipulated stem cell gives rise to multiple T-cell receptor gene rearrangements in the thymus in vitro. *Nature,* vol. 324, 63-64.

WOOD, B. 1987. Hunting technique in African goshawk and its possible relationship to competition with other Accipiter species. *Scopus,* vol. 22(1), 1-11.

FACULTY OF ENGINEERING

CHEMICAL AND BIOCHEMICAL ENGINEERING

AYAZI SHAMLOU, P. (with Edwards, M. F.) 1986. Heat transfer to viscous Newtonian and non-Newtonian fluids for helical ribbon mixers. *Chem. Engng Sci.,* vol. 41, 1957-1967.

BEINY, D. H. M., MULLIN, J. W. 1987. Solubilities of higher normal alkanes in m-xylene. *J. Chem. Engng Data,* vol. 32, 9-10.

BONNERJEA, J., OH, S., HOARE, M., DUNNILL, P. 1986. Protein purification: the right step at the right time. *Bio/technology,* vol. 4, 954, 956 and 958.

BOWLES, P. H., TINSON, S. J., FISH, N. M. (with Thornhill, N. F.) 1987. Utilisation of spline functions for the on-line analysis of fermentation processes. In *Proc. 4th Europ. Conf. on Biotechnology, vol. 3: Amsterdam, The Netherlands, 14-19 June 1987.* O. M. Neijssel, R. R. van der Meer, K. Ch. A. M. Luyben (editors). (The Netherlands: Elsevier.) 155-158.

BROOKS, I. K., LILLY, M. D. (with Drozd, J. W.) 1987. Use of immobilized *Bacillus subtilis* for the stereospecific hydrolysis of d,l-menthyl acetate. *Enzyme Microb. Technol.,* vol. 9, 217-220.

BUDZ, J., JONES, A. G., MULLIN, J. W. 1987. Agglomeration of potassium sulfate crystals in an MSMPR crystallizer. In *Fundamental Aspects of Crystallization and Precipitation Processes. AIChE Symp. Series No. 253,* vol. 83, 78-84.

BUDZ, J., JONES, A. G., MULLIN, J. W. 1987. On the shape-size dependence of potassium sulfate crystals. *Ind. Eng. Chem. Res.,* vol. 26, 820-824.

CEEN, E. G., DUNNILL, P. (with Herrmann, J. P. R.) 1987. Solvent damage during immobilised cell catalysis and its avoidance: studies of 11α-hydroxylation of progesterone by *Aspergillus ochraceus. Appl. Microbiol. Biotechnol.,* vol. 25, 491-494.

CEEN, E. G., DUNNILL, P. (with Herrmann, J. P. R.) 1987. Solvent damage during free cell catalysis and its avoidance: studies of 11α-hydroxylation of progesterone by *Aspergillus ochraceus. Enzyme Microb. Technol.,* vol. 9, 365-368.

DEVEREUX, N., HOARE, M., DUNNILL, P. 1986. The effect of protein precipitation on the concentration of proteins by ultrafiltration. *Chem. Eng. Commun.,* vol. 45, 255-276.

DI FELICE, R., GIBILARO, L. G., WALDRAM, S. P. (with Foscolo, P. U.) 1987. Mixing and segregation in binary-solid liquid fluidised beds, *Chem. Engng Sci.,* vol. 42, 639-652.

DUNNILL, P. 1987. Biotechnology - the ingredients for success. *Science & Business Link-Up,* March 1987, 54-56.

DUNNILL, P. 1987. Biochemical engineering and biotechnology. *Chem. Eng. Res. Des.*, vol. 65, 211-217.

ELSON, T. P., CHEESMAN, D. J. (with Nienow, A. W.) 1986. X-ray studies of cavern sizes and mixing performance with fluids possessing a yield stress. *Chem. Engng Sci.*, vol. 41, 2555-2562.

FISH, N. M. (with Thornhill, N. F.) 1987. Modelling bioprocesses. In *Modelling and Control of Fermentation Processess,* 22-61. (IEE Control Engng Series 31.) J. R. Leigh (editor). (London: Peter Peregrinus Ltd).

FREEMAN, A., LILLY, M. D. 1987. The effect of water-miscible solvents on the Δ'-dehydogenase activity of free and PAAH-entrapped *Arthrobacter simplex. Appl. Microbiol. Biotechnol.*, vol. 25, 495-501.

GARDINER, S. A. M., OLBRICH, R., FISH, N. M., HOARE, M. (with Marston, F. A. O.) 1987. Process design for recombinant protein recovery from inclusion bodies. In *Proc. 4th Europ. Conf. on Biotechnology, vol. 2: Amsterdam, The Netherlands, 14-19 June 1987.* O. M. Neijssel, R. R. van deer Meer, K. Ch. A. M. Luyben (editors). (The Netherlands: Elsevier.) 541-544.

GHAFFARI, R., BURGESS, A. R. 1987. The effect of coal properties and slurry compositon in microexplosive combustion of coal-water and coal-methanol droplets. In *Proc. 12th International Conf. on Slurry Technology, New Orleans, USA, 31 March - 3 April 1987.* (Slurry Technology Association, Washington DC, USA.) 511-522.

GIBILARO, L. G. (with Foscolo, P.) 1987. Fluid dynamic stability of fluidised supensions: the particle bed model. *Chem. Engng Sci.*, vol. 42, 1489-1500.

GIBILARO, L. G., DAVIES, S. N. 1987. Comments on initial response analysis of mass transfer in a gas sparged stirred vessel. *Ibid.*, vol. 42, 391.

GIBILARO, L. G., DI FELICE, R. (with Foscolo, P. U.) 1986. The influence of gravity on the stability of fluidized beds. *Ibid.*, vol. 41, 2438-2440.

GIBILARO, L. G., DI FELICE, R. (with Foscolo, P. U.) 1987. The application of a particulate model to fluidisation dynamics: numerical solutions. In *Proc. CEF 87: The Use of Computers in Chemical Engineering, Taormina, Italy, 26-30 April 1987,* 255-260.

GIBILARO, L. G., DI FELICE, R., WALDRAM, S. P. 1987. Comments on buoyancy in fluidized beds. *Chem. Engng Sci.*, vol. 42, 194-196.

GIBILARO, L. G., DI FELICE, R., WALDRAM, S. P. (with Foscolo, P. U.) 1987. Comments on the buoyancy force on a particle in a fluidized suspension. *Ibid.*, vol. 42, 1272.

GIBILARO, L. G., HOSSAIN, I. (with Foscolo, P. U.) 1986. Aggregate behaviour of liquid fluidised beds. *Can. J. Chem. Engng,* vol. 64, 931-938.

HALASZ, S., MULLIN, J. W. 1987. Precipitation studies in an air-slug crystallizer: potash alum from aqueous solution using 2-propanol. *Cryst. Res. Technol.*, vol. 22, 45-51.

HALASZ, S., MULLIN, J. W. 1987. Precipitation studies in a foam column: potash alum from aqueous solution using 2-propanol. *Ibid.*, vol. 22, 192-197.

HOARE, M., DUNNILL, P. 1986. Processing with proteins - the immediate challenge. *The Chem. Engr,* no. 428, 23-25.

HOARE, M., DUNNILL, P. 1986. Protein processing - new prospects. *Ibid.*, no. 431, 39-41.

HOARE, M., DUNNILL, P. 1987. Biochemical engineering transforms protein processing. *SERC Bulletin*, vol. 3, no. 8, 16-17.

HOARE, M., TITCHENER, N. J. (with Foster, P. R.) 1987. Improvement in separation characteristics of protein precipitates by acoustic conditioning. *Biotechnol. Bioengng*, vol. 29, 24-32.

HOCKNULL, M. D., LILLY, M. D. 1987. The Δ'-dehydrogenation of hydrocortisone by *Arthrobacter simplex* in organic-aqueous two-liquid phase environments. In *Biocatalysis in Organic Media*, C. Laane, J. Tramper, M. D. Lilly (editors). *Proc. Int. Symp: Wageningen, The Netherlands, 7-10 December 1986.* (The Netherlands: Elsevier.) 393-398.

HUGHES, P. R., WHEATLEY, K. W., BURGESS, A. R. 1987. The importance of pyrolysis in Diesel ignition of residual fuel oils. *Fuel Science and Technology International*, vol. 5, 567-583.

JONES, A. G. (with Clark, N. N.) 1987. On the prediction of liquid circulation in a draft-tube bubble column. *Chem. Engng Sci.*, vol. 42, 378.

JONES, A. G., AKERS, S. R. G., BUDZ, J. 1986. Microcomputer programming of temperature in a batch cooling crystallizer. *Cryst. Res. Technol.*, vol. 21, 1383-1390.

JONES, A. G., BUDZ, J., MULLIN, J. W. 1986. Crystallization kinetics of potassium sulfate in an MSMPR agitated vessel. *AIChE J.*, vol. 32, 2002-2009.

JONES, A. G., BUDZ, J., MULLIN, J. W. 1987. Batch crystallization and solid-liquid separation of potassium sulphate. *Chem. Engng Sci.*, vol. 42, 619-629.

KITAMURA, M., MULLIN, J. W. 1986. The MSMPR crystallization of ammonium aluminium sulphate from aqueous solution and the effect of iron (III). In *Proc. World Congress III of Chem. Engng, vol. II: Tokyo, Japan, 21-25 September 1986.* (Japan: Society of Chem, Engrs.) 1048-1051.

KLOOSTERMAN IV, J., LILLY, M. D. 1986. Pilot-plant production of prednisolone using calcium alginate immobilized *Arthrobacter simplex. Biotechnol. Biioengng*, vol. 28, 1390-1395.

KUBOTA, N., MULLIN, J. W. et al. 1986. The effect of a small amount of chromium ion on the solubility of potassium sulfate in water. In *Proc. World Congress III of Chem. Engng, vol. II: Tokyo, Japan, 21-25 September 1986.* (Japan: Society of Chem. Engrs.) 933-936.

LILLY, M. D. 1986. Concluding remarks. In *BMP III Dowstream Processing*, no. 18, 231-233. J. D. Stowell, P. J. Bailey, D. J. Winstanley (editors). (Pub. for Soc. for Gen. Microbiol.) (London: Academic Press).

LILLY, M. D. 1987. Culture systems and bioreactors. In *Modelling and Control of Fermentation Processes*, 87-96. (IEE Control Engng Series 31) J. R. Leigh (editor). (London: Peter Peregrinus Ltd.).

LILLY, M. D. 1986. Developments in industrial biocatalysis. In *Proc. 7th Australian Biotechnology Conf: University of Melbourne, Australia, 25-28 August 1986*, 83-88.

LILLY, M. D., BRAZIER, A. J., HOCKNULL, M. D., WILLIAMS, A. C., WOODLEY, J. M. 1987. Biological conversions involving water-insoluble organic compounds. In *Biocatalysis in Organic Media*, C. Laane, J. Tramper, M. D. Lilly (editors). *Proc. Int. Symp: Wageningen, The Netherlands, 7-10 December 1986.* (The Netherlands: Elsevier.) 3-17.

NIENOW, A. W., KILLICK, R. C. 1987. Binding agents to enhance fluidised bed gas cleaning. *Powder Technol.*, vol. 50, 267-274.

NIENOW, A. W., NAIMER, N. S., CHIBA, T. 1986. Studies of segregation/mixing in fluidised beds of different size particles. In *Proc. World Congress III of Chem. Engng, vol. IV: Tokyo, Japan, 21-25 September 1986.* (Japan: Society of Chem. Engrs.) 457-460.

ROWE, P. N. 1987. Effect of pressure on the minimum bubbling velocity of polydisperse materials. *Chem. Engng Sci.*, vol. 42, 387.

ROWE, P. N., CHEESMAN, D. J. (with Jin Yong, Yu Zhiqing) 1986. On the bed collapse technique for measuring the dense phase voidage of a gas fluidised bed. In *Proc. World Congress III of Chem. Engng, vol. III: Tokyo, Japan, 21-25 September 1986.* (Japan: Society of Chem. Engrs.) 425-428.

ROWE, P. N., YATES, J. G. 1987. Fluidized-bed reactors. In *Chemical Reaction and Reactor Engineering,* 441-498. J. J. Carberry and A. Varma (editors). (New York: Marcel Dekker Inc.).

WILLIAMS, A. C., WOODLEY, J. M., ELLIS, P. A., LILLY, M. D. 1987. Denaturation and inhibition studies in a two-liquid phase biocatalytic reaction: the hydrolysis of menthyl acetate by pig liver esterase. In *Biocatalysis in Organic Media,* C. Laane, J. Tramper, M. D. Lilly (editors). *Proc. Int. Symp: Wageningen, The Netherlands, 7-10 December 1986.* (The Netherlands: Elsevier.) 399-404.

WISDOM, R. A., DUNNILL, P., LILLY, M. D. 1987. Enzymic intersterification of fats: laboratory and pilot-scale studies with immobilized lipase from *Rhizopus arrhizus. Biotechnol. Bioengng,* vol. 29, 1081-1085.

YATES, J. G. 1986. *Osnovy Mechaniki Psevdoozhizhenia s Prilozhenijami,* (Moskva, Izdatelstvo "Mir".) 222 pp.

YATES, J. G. 1987. On the erosion of metal tubes in fluidized beds. *Chem. Engng Sci.*, vol. 42, 379-380.

YATES, J. G., RUIZ-MARTINEZ, R. S. 1987. Effect of horizontal tubes on the flow of bubbles in a fluidized bed. In *Proc. CSChE Annual Conf: Montreal, Canada, 18-22 May 1987,* 104-106.

ZACEK, S., NYVLT, J., MULLIN, J. W. 1987. Mixed suspension, mixed product removal crystallization kinetics: effect of the method of supersaturation generation. *Coll. Czech. Chem. Commun.*, vol. 52, 72-80.

ZHENG DAO-HONG, BUDZ, J., JONES, A. G., MULLIN, J. W. 1986. Some effects of chromium (III) on the crystallization of potassium sulphate. *J. Cryst. Growth,* vol. 79, 658-666.

CIVIL AND MUNICIPAL ENGINEERING

ALLSOP, R. E. 1985. Modelling local area traffic management - some principles and practicalities. *Australian Road Research,* vol. 15, no. 1, 3-8.

ALLSOP, R. E. 1985. Some British experience relevant to transport and traffic problems in Naples. In *Trasporti e Mobilita a Napoli* (in Italian). *Incontri a dibattiti a cura del Banco di Napoli,* vol. 9, 33-50.

ALLSOP, R. E. 1986. Transport Studies Group, University College London: Progress Report 1985. *Traffic Engineering and Control,* vol. 27, no. 2, 67-72.

ALLSOP, R. E. 1987. Transport Studies Group, University College London: Progress Report 1986. *Traffic Engineering and Control,* vol. 28, no. 2, 85-91.

ALLSOP, R. E., COEYMANS, J. E. 1985. Traffic management: from intuition to simulation (in Spanish). *Revista Latino Americana de Estudios Urbana Regionales EURE,* vol. 12, no. 33, 33-48.

ALLSOP, R. E., MOGRIDGE, M. J. H., SILCOCK, J. P., GALLIVAN, S. 1986. Comparison of the use of COBA, CONTRAM and TRAFFICQ for the economic appraisal of road improvement schemes in urban areas. *TRRL Contractor Report* CR 74. (Crowthorne: Transport and Road Research Laboratory).

ALLSOP, R. E., TURNER, E. D. 1986. Road casualties and public transport fares in London. *Accident Analysis and Prevention,* vol. 18, no. 2, 157-167.

ALLSOP, R. E. 1987. Strategien und Methoden zur Verkehrssteuerung durch Lichtsignale (in German). *Proc. of Heureka 87 - Optimierung in Verkehr und Transport, Karlsruhe, March 1987.*

ARTHUR, J. R. F., DUNSTAN, T., ENSTAD, G. G. 1985. Determination of the flow function by means of a cubic plane strain tester. *Int. J. Bulk Storage of Silos,* vol. 1, 7-10.

ARTHUR, J. R. F., KOENDERS, M. A., WONG, R. K. S. 1986. Anisotropy in particle contracts associated with shearing in granular media. *Acta Mechanica,* vol. 64, 19-29.

BIRD, J., HOLDEN, D. J. 1986. Bicycle ownership and use - some comparisons between the 1978-1979 National Travel Survey and the 1981 Greater London Transportation Survey. *TRRL Contractor Report* CR14. (Crowthorne: Transport and Road Research Laboratory).

CASTRO, P. F., DOMONE, P. L. J. 1986. The Escot test for the estimation of concrete strength. *Proc. of the 21st Annual Meeting of the Brazilian Paving Association, Salvador, Brazil, September 1986* (in Portugese).

CEA, J. DE, ORTUZAR, J. DE, D., WILLUMSEN, L. G. 1986. Evaluating marginal improvements to a transport metwork: an application to the Santiago underground. *Transportation,* vol. 13 no. 3, 211-233.

CLOUGH, G., IVES, K. J. 1986. Deep bed filtration mechanisms observed with fibre-optic endoscopes and CCTV. *Proc. 4th World Filtration Congress, Ostend, 22-25 April 1986.* 13.21 - 13.26.

COEYMANS, J. E., WILLUMSEN, L. G. 1986. Adapting TRANSYT to conditions in developing countries. *Proc. PTRC Summer Annual Meeting, Brighton, July 1986.*

CROLL, J. G. A., ELLINAS, C. P. 1986. Elastic-plastic buckling design of cylindrical shells subject to combined axial compression and pressure loading. *Int. J. Solids. Struct.,* vol. 22, no. 9, 1007-1017.

CROLL, J. G. A., ELLINAS, C. P. 1985. A design formulation for axisymmetric collapse of stiffened and unstiffened cylinders. *Trans. ASME,* vol. 107, 350-355.

CROLL, J. G. A., ELLINAS, C. P., KAIMAKAMIS, N. F. 1986. Design of efficient orthogonally stiffened cylinders. *Proc. 5th Offshore Mechanics and Arctic Engineering Symposium, OMAE 1986, Tokyo, 13-17 April 1986.* vol. II, 103-113.

CROLL, J. G. A., TAM, C. K. W. 1986. An improvement of the propagation buckle performance of subsea piplelines. *Thin Walled Structures,* vol. 4, no. 6, 423-448.

CROLL, J. G. A., TAM, C. K. W. 1986. Analysis of buckle initiation in damaged subsea pipelines. *Proc. 5th Offshore Mechanics and Arctic Engineering Symposium, OMAE 86, Tokyo, 13-17 April 1986,* 700-708.

CROLL, J. G. A., ZINTILIS, G. M. 1986. Pressure buckling of cantilevered shells of revolution. *Thin Walled Structures,* vol. 4, 381-408.

DOMONE, P. L. J., TANK, S. B. 1986. The use of condensed silica fume in Portland Cement grouts. *Proc. of 2nd International Conf. on the Use of Fly Ash, Silica Fume, Slag and Natural Pozzolanas in Concrete, Madrid, April 1986. Amer. Conc. Inst. publ.* Sp-91, 1231-1260.

DOMONE, P. L. J., THURAIRATNAM, H. D. 1986. Development of mechanical properties of ordinary Portland and Oilwell B cement grouts. *Magazine of Concrete Research,* vol. 38, no. 136, 129-138.

DOMONE, P. L. J., CASTRO, P. F. 1986. An expandable sleeve test for in situ concrete strength evaluation. *Concrete,* vol. 20, no. 3, 24-25.

DOMONE, P. L. J., CASSON, R. B. J. 1986. Ultrasonic testing of concrete. *Proc. of of the IMA Conference on Mathematical Modelling in Non-Destructive Testing. Cambridge, September 1986.*

DOMONE, P. L. J., THURAIRATNAM, H. D. 1987. High early strength concrete. Report on Stage 1 of Project 1 of SERC Marine Technology Cohesive Programme on Grouts and Grouting, London Marine Technology Centre, February 1987. (Confidential to programme contributors).

DOMONE, P. L. J., CASTRO, P. F. 1987. An expandable sleeve test for in situ concrete and mortar strength evaluation. *Proc. of Structural Faults and Repair - 87 Conference. University of London, July 1987.* (Engineering Technics Press).

GRASS, A. J., SIMONS, R. R., CAVANAGH, N. J. 1986. Fluid loading on cylinders undergoing large orbital oscillations in a steady current. *Proc. 5th International Symposium on Offshore Mechanisms and Arctic Engineering, Tokyo, 13-17 April. ASME,* Paper No. OMAE - 86-1267.

GRASS, A. J., SIMONS, R. R., CAVANAGH, N. J. 1987. Vortex-induced velocity enhancement in the wave-flow field around cylinders. *Proc. 6th International Symposium on Offshore Mechanics and Arctic Engineering, Houston, 1-5 March. ASME,* Paper No. OMAE - 87-438.

GREGORY, J. 1985. Precipitation and coagulation in waste treatment. In *Comprehensive Biotechnology.* Vol. 3 Section 4 *Waste Management and Pollution Control,* 785-799. C. L. Cooney and A. E. Humphrey (editors). (Oxford: Pergamon Press).

GREGORY, J. 1986. Flocculation. In *Progress in Filtration and Separation,* vol. 4, 55-99. R. J. Wakeman (editor). (Amsterdam: Elsevier).

GREGORY, J., NELSON, D. W. 1986. Monitoring of aggregates in flowing suspensions. *Colloids and Surfaces,* vol. 18, 175-188.

GREGORY, J. 1986. The action of polymeric flocculants. In *Flocculation, Sedimentation, and Consolidation,* 125-137. B. Moudgil and P. Somasundaran (editors). (New York: Engineering Foundation).

GREGORY, J. 1987. Kinetic aspects of polymer adsorption and flocculation. In *Flocculation in Biotechnology and Separation Systems,* 31-44. Y. Attia (editor). (Amsterdam: Elsevier).

GREGORY, J. 1987. Flocculation by polymers and polyelectrolytes. In *Solid-Liquid Dispersions,* 163-181. Th. F. Tadros (editor). (London: Academic Press).

HEYDECKER, B. G. 1986. On the definition of traffic equilibrium. *Transportation Research,* vol. 20B, no. 6, 435-440.

HEYDECKER, B. G. 1986. The equilibrium network design problem: a critical review. *Paper presented to NATO Advanced Workshop: Flow Control of Congested Networks: The Case of Data-Processing and Transportation. Capri, October 1986.*

HEYDECKER, B. G. 1986. Uncertainty and variability in traffic signal calculations. *18th Annual Conference of the Universities Transport Study Group, Cardiff, January 1986.*

HEYDECKER, B. G., DUDGEON, I. W. 1987. Calculation of signal settings to minimise delay at a junction. *Proc. 10th International Symposium on Transportation and Traffic Theory, MIT, 8-10 July 1987.* 159-178.

HEYDECKER, B. G., SMITH, M. J., VUREN, M. J., VAN, VLIET D. VA. 1987. The interaction between signal control policies and route choice. *Ibid.*, 319-338.

HOOSE, N., WILLUMSEN, L. G. 1987. Automatically extracting traffic data from videotape using the CLIP4 parallel image processor. *19th Annual Conference of the Universities Transport Study Group, Sheffield, 5-7 January 1987.*

IMPROTA, G., ALLSOP, R. E., HEYDECKER, B. G. 1986. Network models for traffic management. *International Seminar on The Management and Planning of Urban Transport Systems from Theory to Practice, Montreal, August 1986.*

IVES, K. J. 1986. Recent developments in filtration. *Proc. Filtration Symposium, Nagoya, 29-30 September 1986,* 1-9.

IVES, K. J. 1986. Developments in deep bed filtration. *Proc. World Congress III of Chem. Engin.*, vol. III, Tokyo, Japan, 21-25 September 1986, 69-72.

IVES, K. J. 1987. Filtration of clay suspensions through sand. *Clay Minerals,* vol. 22, 49-61.

KHAN, M. A., WILLUMSEN, L. G. 1986. Modelling car ownership and use in developing countries. *Traffic Engineering and Control,* vol. 27, no. 11, 544-560.

KOLIOPULOS, P. K., YARIMER, E. 1987. Prediction of Non-Gaussian Motion Characteristics in Linear Platform Dynamics. *Report prepared for the SERC Directorate of Marine Technology Research, Project, Ref. 3.lb/21, April 1987.*

MACKETT, R. L. 1985. Integrated land-use transport models. *Transport Reviews,* vol. 5, no. 4, 325-343.

MACKETT, R. L. 1985. Forecasting the long-term effects of increases in the cost of travel. In *Optimization and Discrete Choice in Urban Systems,* 327-342. B. Hutchinson, P. Nijkamp and M. Batty (editors). (Berlin: Springer-Verlag).

MACKETT, R. L. 1985. Towards a simulation model of the processes of home and job choice by individuals. In *Housing Policy in Urban areas: Principles, Planning and Policy,* 71-84. A. E. Anderrson and B. Harsman (editors). (Stockholm: Swedish Council for Building Research).

MACKETT, R. L. 1986. Effects of changes in transport networks. *Symposium on Land-Use Transport Interaction, Tokyo, September 1986.*

MACKETT, R. L. 1986. The Amersfoort model. *Ibid.*

MACKETT, R. L. 1986. The Leeds integrated Land-Use Transport Model, *Ibid.*

MACKETT, R. L. 1986. The representation of transport and the interaction between land-use and transport. *Ibid.*

MACKETT, R. L. 1987. Research issues in modelling the interaction between land use and transport. *Dip. n. 37 - Idraulica, Trasporti è Strade, Universita degli Studi di Roma 'La Sapienza', April 1987.*

MACKETT, R. L., JOHNSON, I. 1985. Residential search behaviour - the implication for survey and analytical design. *Tijdschrift voor Econo-mische en Sociale Areografie,* vol. 76, 173-179.

MOGRIDGE, M. J. H. 1985. Transport, land use and energy interaction. *Urban Studies,* vol. 22, 481-492.

MOGRIDGE, M. J. H. 1986. Appendix 2: Accessibility. In *The Adequacy of British Rail's London Services*, 77-92. (London: GLC).

MOGRIDGE, M. J. H. 1986. If London is more spread out than Paris, why don't Londoners travel more than Parisians? *Transportation*, vol. 13, no. 1, 85-104.

MOGRIDGE, M. J. H. 1985. Jam yesterday, jam today and jam tomorrow? *University College London Lunchtime Lecture, October 1985.*

MOGRIDGE, M. J. H. 1986. Journey-to-work costs. *Seminar on the Costs of Working, Basic Income Research Group, London, June 1986.*

MOGRIDGE, M. J. H. 1986. Road pricing: the right solution for the right problem? *Transportation Research*, vol. 20A, no. 2, 157-167.

MOGRIDGE, M. J. H., HOLDEN, D. J. 1987. A panacea for road congestion? A riposte. *Traffic Engineering and Control*, vol. 28, no. 1, 13-19.

MOGRIDGE, M. J. H., HOLDEN, D. J., BIRD, J. 1986. The impact of road and rail improvements on journey-speeds in London. *18th Annual Conference of the Universities Transport Study Group, Cardiff, 6-8 January 1986.*

MORTON, G. D., SILCOCK, J. P. 1987. A phase-based calculation method for settings at a signal-controlled junction. *Conference on Management and Control of Urban Traffic, Henniker, New Hampshire, June 1987.*

MOWFORTH, M. R. N. 1985. Census 1982 Small Area Statistics for GLTS traffic zones. *GLTS (1981) Note* 100. (London: GLC).

OGUNBEKUN, O. O. O., DUNSTAN, T. 1985. Plane strain tests on calcite using a new flexible boundary tester. *Reliable Flow of Particulate Solids, Bergen, Norway, August 1985.*

SAVAGE, I. P., SCHOLEFIELD, G. P., WHITE, P. R. 1986. An evaluation of 'revenue at risk' from urban bus service changes. *Traffic Engineering and Control*, vol. 27, no. 7/8, 398-401.

SCHOLEFIELD, G. P. 1986. A contingency table analysis of the time of day at which people make non-work trip chains. *18th Annual Conference of the Universities Transport Study Group, Cardiff, 6-8 January 1986.*

SILCOCK, J. P. 1987. Variability between runs in TRAFFICQ. *Discussion Paper, TRAFFICQ Users Group Meeting, May 1987.*

TAM, C. K. W., CROLL, J. G. A. 1987. Elastic stress concentrations in cylindrical shells containing local damage. *Applied Solid Mechanics Conference, 7-8 April 1987, Strathclyde, Glasgow.*

TERZIS, G. 1987. Use of LRT panel data to investigate the effects of the London Travelcard scheme. *19th Annual Conference of the Universities Transport Study Group, Sheffield, 5-7 January 1987.*

THOMPSON, J. M. T., VIRGIN, L. N. 1986. Predicting a jump to resonance using transient maps and beats. *Int. J. Non-Linear Mechanics*. vol. 21, 205-216.

THOMPSON, J. M. T. (with STEWART, H. B.) 1986. Towards a classification of generic bifurcations in dissipative dynamical systems. *Dynamics and Stability of Systems*, vol. 1. 87-96.

THOMPSON, J. M. T., BISHOP, S. R., LEUNG, L. M. 1987. Fractal basins and chaotic bifurcations prior to escape from a potential well. *Physics Letters*, vol. 121A, 116-120.

THOMPSON, J. M. T., STEWART, H. B. 1986. Nonlinear dynamics and chaos: Geometrical Methods for Engineers and Scientists. (Chichester: Wiley).

TIGHT, M. R., HAKKERT, A. S., ALLSOP, R. E., LEUTZBACH, W. 1986. A comparison of road safety in the Federal Republic of Germany and Great Britain. *Proc. PTRC Summer Annual Meeting, Brighton, July 1986.*

WARMAN, P. R., DOWNE, H. E. 1985. Information requirements of public transport users in large cities. *Seminar on Public Transport Operational Research, Leeds, 1985.*

WILLUMSEN, L. G. 1985. Microcomputer software for the application of OR techniques to traffic and transport. In *OR Models on Microcomputers*, 47-55. J. D. Coelho and L. V. Travers (editors). (Amsterdam: Elsevier Science).

WILLUMSEN, L. G. 1985. Simplified trip interchange models based on traffic flows (in Spanish). In *La Planificacion del Transporte en America Latina. Collection Estudios e Informes de la CEPAL, United Nations*, Santiago, 161-176.

WILLUMSEN, L. G. 1985. Simplified urban transport models (in Spanish). *Revista Latino Americana de Estudios Urbano Regionales EURE* vol. 12 no. 33, 49-64.

WILLUMSEN, L. G. 1986. Trip matrix estimation using traffic counts: five years of experience (in Spanish). *Proc. IV Pan-American Congress of Traffic and Transport Engineering, Santiago, December, 1986.*

WILLUMSEN, L. G., HOOSE, N. 1986. Use of image processing for traffic data collection (in Spanish). *Apuntes de Ingenieria*, No. 24.

WILLUMSEN, L. G., KAY, W. 1986. Designing roundabouts with the use of computers (in Spanish). *Proc. IV Pan-American Congress of Traffic and Transport Engineering, Santiago, December, 1986.*

WILLUMSEN, L. G., KAY, W., GHOSH, A. 1986. Computer assisted design of roundabouts. *Proc. PTRC Summer Annual Meeting, Brighton, July 1986.*

WILLUMSEN, L. G., ORTUZAR, J. De D. 1985. Inuition and models in transport management. *Transportation Research*, vol. 19A no. 1, 51-57.

WONG, R. K. S., ARTHUR, J. R. F., DUNSTAN, T. 1987. Induced anisotropy in wet remoulded kaolinite and bentonite model materials. *Chemical Engineering Science.* vol. 42, no. 4, 745-751.

WONG, R. K. S., ARTHUR, J. R. F. 1985. Determination and uses of strain distributions in sand samples. *ASTM Geotech. Testing J.* vol. 8, no. 3, 101:110.

WONG, R. K. S., ARTHUR, J. R. F. 1986. Induced and inherent anisotropy in sand. *Geotechnique*, vol. 35, no. 4, 471-482.

WONG, R. K. S., ARTHUR, J. R. F. 1986. Sand sheared with cyclic variations in directions. *Geotechnique*, vol. 36, no. 2, 215-226.

ELECTRONIC AND ELECTRICAL ENGINEERING

BAILEY, A. H., PITT, C. W. 1987. Fabrication of optical thin films of aluminium oxide using plasma-enhanced chemical vapour deposition. *Proc. IPAT '87,* 470-475.

BOYD, I. W. (with Smirl, A. L., Boggess, T. F., Moss, S. C., Van Driel, H. M.) 1986. Structural changes produced in silicon by intense 1- m ps pulses. *J. Appl. Phys.*, vol.60, no. 3, 1169-1182.

BOYD, I. W. (with Boggess, T. F., Smirl, A. L., Moss, S. C.) 1986. Fundamentals and applications of the interaction of picosecond, and micron radiation with crystalline silicon. *Proc. of the 2nd Conference, Trends in Quantum Electronics, Bucharest, November 1986.* (Heidelberg: Springer-Verlag). 281-300.

BOYD, I. W. 1986. Laser microfabrication of thin films and microstructures. *Digest IEE Colloquium on Laser Processing of Materials,* December 1986, 1.1-1.4.

BOYD, I. W., MICHELI, F. 1986. Mechanisms of photon enhanced oxidation of silicon. *Ibid.*, 8.1-8.3.

BOYD, I. W. (with Nayar, V.) 1986. Photoformation of dielectric materials. *Ibid.*, 5.1-5.6.

BOYD, I. W., MICHELI, F. 1986. Laser microfabrication of thin films: Part one. *Optics & Laser Technology,* vol. 18, no. 6, 313-317.

BOYD, I. W., MICHELI, F. 1986. Laser microfabrication of thin films: Part two. *Optics & Laser Technology,* vol. 19, no. 1, 19-25.

BOYD, I. W. (with Wilson, J. I. B.) 1987. Structure of ultrathin silicon dioxide films. *Appl. Phys. Lett.*, vol. 50, no. 6, 320-322.

BOYD, I. W., MICHELI, F. 1987. Wavelength dependance of optical oxidation of silicon. *Electronics Letters,* vol. 23, no. 6, 296-300.

BOYD, I. W., MICHELI, F. 1987. Laser microfabrication of thin films: Part three. *Optics & Laser Technology,* vol. 19, no. 2, 17-82.

BOYD, I. W. 1987. New interpretation of structure of thermally grown silicon dioxide. *Electronics Letters,* vol. 23, no. 8, 411-413.

BOYD, I. W., MICHELI, F. 1987. A study of rapid thermal oxidation of silicon: Photonic Effects. *E-MRS Conference, Strasbourg, 2-5 June 1987.*

BRADLEY, P. J., WHEATLEY, P., PARRY, G., MIDWINTER, J. E. (with Mistry, P., Pate, M. A., Roberts, J. S.) 1987. A hard-limiting optoelectronic logic device. *Tech. Digest of Photonic Switching Conf., Nevada, OSA Technical Digest Series,* vol. 13, FA3-1.

BRADLEY, P. J., WHEATLEY, P., PARRY, G., MIDWINTER, J. E., MISTRY, P., ROBERTS, J. S. 1987. A high contrast opto-electronic logic device using a waveguide MOW optical modulator. *Electronics Letters,* vol. 23, 213-214.

CULLEN, A. L., YEO, S. P. 1986. Six-port reflectometer theory for symmetrical five-port junction directional coupler. *IEE Proc.*, vol. 133, pt. H, no. 4, 277-287.

CULLEN, A. L. 1986. Electromagnetism: Obscurities, curiosities and practicalities. *The Eleventh Clerk Maxwell Memorial Lecture, JIERE,* vol. 56, no. 8/9, 281-291.

CULLEN, A. L., XU, J. D. 1986. Quasi-optical seven-port reflectometer for millimetre waves. *IEE Proc.*, vol. 133, pt. H, no. 6, 455-461.

CULLEN, A. L., YEO, S. P. 1987. Using the least-squares boundary residual method to model the symmetrical five-port waveguide junction. *IEE Proc.*, vol. 134, pt. H, no. 2, 116-124.

DARBYSHIRE, D. A., PITT, C. W., STRIDE, A. A. 1987. Fabrication of large scale optical components in silicon by reactive ion etching. *J. Vac. Sci. Tech.*, vol. 85, no. 2, 575-578.

DARBYSHIRE, D. A., PITT, C. W. 1987. Profile control of large optical structures in silicon by gas etching techniques. *Proc. IPAT '87,* 308-314.

DAVIES, D. E. N. (with Economou, G.) 1987. Studies of an optical fibre displacement sensor. *JIERE,* vol. 57, no. 2, 63-66.

DAVIES, D. E. N. (with Economou, G., Youngquist, R. C.) 1986. Limitations and noise in interferometric systems using frequency ramped single-mode diode lasers. *IEEE, Journal of Lightwave Technology,* vol. LT-4, no. 11, 1601-1608.

DAVIES, D. E. N. (with Youngquist, R. C., Carr, S.) 1987. Optical coherence-domain reflectometry: a new optical evaluation technique. *Optics Letters,* vol. 12, no. 3.

DAVIES, J. B. (with Winkler, J. R.) 1986. Accurate field analysis of the propagation of elastic waves through an acoustic microscope, Part I: Theory. *IEEE Trans.*, UFFC-33, 644-656.

DAVIES, J. B. (with Winkler, J. R.) 1986. Accurate field analysis of the propagation of elastic waves through an acoustic microscope, Part II: Results. *IEEE Trans.*, UFFC-33, 657-668.

DAVIES, O. J., OSMANY, J. 1987. A fault tolerant controller for high integrity systems, Microprocessing & Microprogramming. *The Euromicro Journal, Special Issue on Fault Tolerant Computing,* vol. 20, nos. 4 & 5, 207-299.

FARIDAN, F., SOMEKH, M. G. 1986. FMCW techniques in scanning acoustic microscopy. *Proc. of IEEE Ultrasonic Symposium, Williamsburg, Vir., November 17-19 1986,* 775.

FLANAGAN, M. T., CARROL, N.G. 1986. Thin-film antimony-antimony-oxide enzyme electrode for penicillin determination. *Biotechnology and Bioengineering,* vol. XXVIII, 1093-1099.

FRANKS, R. B., TORRUELLAS, W., YOUNGQUIST, R. C. 1986. Low-coherence resonant ring rotation sensor. *Proc. 4th Int. Conf. on Optical Fibre Sensors, Tokyo, 7-9 October 1986,* 205-208.

GILES, I. P. (with Farhadiroushan, M., Youngquist, R. C.) 1986. Optical fibre resonator rotation sensor using a low coherence source. *10th Anniversary Conf., Fibre Optic Gyros,* (SPIE), vol. 719.

GILES, I. P. (with Mackintosh, J., MacMillan, J., Culshaw, B.) 1986. Coherent back-scatter-induced drift in phase-modulated optical fibre gyroscopes. *Elec. Letts.*, vol. 22, no. 9, 494-496.

GILES, I. P., FARHADIROUSHAN, M., YOUNGQUIST, R. C. 1986. Low coherence resonant ring rotation sensor. *Optial Fibre Sensors, '86 Tokyo, 7-9 October 1986.*

GILES, I. P. 1987. Optical fibre ring resonator gyroscopes, Laser Giros and Fibre Optic Gyros. *Royal Aeronautical Society Symposium, February 1987.*

GILES, I. P. 1987. Correction of sample-and-hold amplitude distortion in switched-capacitor filters. *Electronics Letters,* vol. 23, no. 5.

GILES, I. P. (with Boughton, R. J., Farhadiroushan, M., Kreit, D., Youngquist, R. C.) 1987. Optical-fibre systems with nonreciprocal couplers. *Opticas Letters,* vol. 12, no. 3, 205-207.

GILES, I. P., YOUNGQUIST, R. C. (with Markatos, S., Ayres, S., Kreit, D., Kerr, A.) 1987. Optical fibre switch. *Proc. SPIE Fibre optic sensors II, The Hague, April 1987,* vol. 798.

GILES, I. P., YOUNGQUIST, R. C., KREIT, D. 1987. Polarization insensitive acoustic fibre phase modulator. *Ibid.*, vol. 798.

GILES, I. P., FARHADIROUSHAN, M. 1987. Recirculating optical fibre filter with a "non-reciprocal" coupler. *Ibid.*, vol. 798.

GILES, I. P. 1987. Distributed optical fibre sensors. *Physics in Technology,* July.

GRIFFITHS, H. D., WINGHAM, D. J. (with Guymer, T., Srokosz, M., Challenor, P.) 1986. An automatic tracking mode switching and fast delivery product algorithms for the ERS-1 altimeter. *ESA Scientific and Technical Publications Branch, ESTEC, Noordwijk, The Netherlands, 1986.*

GRIFFITHS, H. D. (with Rapley, C. G.) 1986. Techniques for providing high spatial resolution from radar altimeters. *International Geoscience and Remote Sensing Symp., Zurich, September 1986.*

GRIFFITHS, H. D. (with Long, N. R. W.) 1986. Television-based bistatic radar. *IEE Proc.*, vol. 133, pt. F, no. 7, 649-657.

GRIFFITHS, H. D. (with Narhi, T., Laukkanen, K., Chapman, A. G., Milne, K.) 1987. Antenna diversity in digital mode radio. *International Conf. on Digital Land Mobile Radio Communications, Venice, 30 June - 3 July 1987.*

HALLEY, J., WHEATLEY, P., WHITEHEAD, M. B., MIDWINTER, J. E. 1986 Thermal crosstalk in MQW optical logic arrays. *IEE Colloquium on MQW Devices, Physics, Engineering and Applications, IEE, 8 December, 1986.*

HALLEY, J., ABRAHAM, E. 1987. Some calculations of temperature profiles in thin films with laser heating. *Applied Physics A.*, vol. 42, 279-285.

MIDWINTER, J. E., HALLEY, J. M. 1986. Thermo-optic bistable devices: theory of operation in freestanding films. *Optical and Quantum Electronics*, vol.18, 57-72.

MIDWINTER, J. E. 1986. Performance boundaries for optical fibre systems. *NATO-ASI on "Performance limits in communications, theory and practice", Il Ciocco, Italy, 14-18 July 1986.* (Netherlands: Martinus Nijhoff).

MIDWINTER, J. E. 1986. Digital optics and optical computing. *Ibid.*

MIDWINTER, J. E. 1986. Digital optics in switching. *European Conf. on Optical Communications, Barcelona, Spain, 22-26 September 1986.*

MIDWINTER, J. E. 1987. Digital optics. *URSI General Assembly, Tel-Aviv, Israel, 26-28 August 1987.*

MIDWINTER, J. E. 1987. Components for optical switching. *IEEE/OSA Topical meeting on Photonic Switching, Incline Village, Nevada, 16-20 March 1987.*

MIDWINTER, J. E., PARRY, G. 1987. Principle of Photonic Switching. *International Conf. on Communication, ICC-87, Seattle, 8-10 June 1987.*

MIDWINTER, J. E. 1987. Photonics 1995. *Workshop on the ISDN, Monterey, USA, June 1987.*

PARRY, G., (with Saunders, F.) 1986. A novel optical cell design for liquid crystal devices providing sub-millisecond switching. *J. Opt. Quant. Elect.*, vol. 18, 427.

PETRUCCI, M., PITT, C. W. (with Dobson, P. J.) 1986. RHEED studies on z-cut LiNb0. Electronics Letters, vol. 22, no. 18, 954-956.

PITT, C. W., (with Bailey, A. H., Darbyshire, D. A., Overbury, A. P. 1986. Plasma deposition of metal oxide films for Integrated optics, *Vacuum*, vol. 36, nos. 1-3, 139-142.

SAKAI, I., PARRY, G., YOUNGQUIST, R. C. 1986. Frequency division multiplexing of optical fibre sensors using a phase/frequency modulated source and gated output. *Proc. 4th Inst. Conf. on Optical Fibre Sensors, 7-9 October 1986, 47-50.*

SAKAI, I., YOUNGQUIST, R. C., PARRY, G. 1987. Multiplexing of optical fibre sensors using a frequency modulated source and gated output, *J. Lightwave Technology*, vol. LT-5, no. 7.

SEEDS, A. J., (with Singleton, J. F., and Brunt, S. P.) 19 . Optical control of W-band impatt oscillators, *IEE Electronics Division Colloquium on Optical Control and Generation of Microwave Signals, London, January 1986.* Colloquium Digest 1986/4.

SEEDS, A. J., (with Singleton, J. and Brunt, S. P.) 1986. Optical control of W-band impatt oscillators, *IEE Proc., J. Opto-Electronics*, vol. 133J, 349-352.

SEEDS, A. J., (with Singleton, J. F., Brunt, S. P., Forrest, J. R.) 1987. The optical control of IMPATT oscillators, *IEEE Jnl. Lightwave Tech.*, vol. LT-5, pp 403-411.

SEEDS, A. J., LENOIR, B. 1986. Avalanche diode harmonic optoelectronic mixer, *IEE Proceedings*, vol. 133, pt. J, no. 6.

SEQUEIRA, G. L., THOMAS, H. J., COLE, R. S. 1987. Power spectra measurements on a MM-wave mobile link, *Proc. International Microwave Symposium, Rio de Janeiro, 27-30 July 1987.* 1229-1234.

SMITH, M. S., BARRETT, M. J. 1986. Experimental wire grid modelling for antennas on structures. *Electronic Letters*, vol. 22, no. 18, 940-941.

SOMEKH, M. G. 1986. Present and future uses of scanning acoustic microscopy for material studies, *Materials Forum*, vol. 10, no. 2.

SOMEKH, M. G. 1987. Consequences of resonant surface-wave excitation on contrast in reflection scanning acoustic microscope. *IEE Proc.*, vol. 134, pt. A, no. 3, 290-300.

SOMEKH, M. G., ADDISON, R. C. (with Briggs, G. A. D.) 1986. Techniques for the characterisation of film adhesion, *IEEE Ultrasonics Symposium, Williamsburg, Vir, 17-19 November 1986.*

STEPTOE, K. J., DAVIES, O. J. 1986. An approach to the introduction of VLSI in university courses. *European Conf. on Customer/Vendor Interfaces in Microelectronics, EURO, CVIM, Kaiserslaten, 23-24 September 1986.*

TAYLOR, J. T., HAIGH, D. G. 1987. Stray-free first-order circuit for correction of sample-and-hold amplitude distortion in switched-capacitor filters. *Electronics Letters*, vol. 23, no. 5, 177-178.

TAYLOR, J. T., SINGH, B., HAIGH, D. G., Low sensitivity switched capacitor ladder filters with maximum signal handling capability, *IEEE, International Symposium on Circuits and Systems, May 1987.*

TAYLOR, W. K., Coilable robot design and applications. *Advanced Robotics Programme Workshop on Manipulators, Sensors and Steps towards Mobility, Nuclear Research Centre Karlsruhe, Federal Republic of Germany, 11-13 May 1987.*

THOMAS, H. J., SEQUEIRA, G. L., COLE, R. S. 1986. MM-wavelength cellular radio: Propagation measurements at 55 GHz. *Proc. of the 16th European Microwave Conference, Dublin, Ireland, September 1986,* 221-226.

THOMAS H. J., SEQUEIRA, G. L., COLE, R. S. 1987. MM-waves show merit for mobile cellular radio. *In Microwaves and R.F.*, vol. 26, no. 2, 67-70.

THORNHILL, N., (with Fish, N. M., Bowles, P. H., Tinson, S. J.) 1987. Utilisation of spline functions for the on-line analysis of fermentation processes. *In Proc. 4th European Congress on Biotechnology, June 1987.* (Amsterdam Elsevier Science Publishers).

VENKATESH, S., NOVAK, S. 1986. Fibreoptic detection of optothermal vibrations, *4th Int. Conf. on Optical Fibre Sensors, Tokyo, 7-9 October 1986. Tech. Digest PDI-PDI 5.*

VENKATESH, S. and NOVAK, S. 1987. Micromechanical resonators in fibreoptic systems, *Optics Letters*, vol. 12, no. 2, 129-131.

WHEATLEY, P., MIDWINTER, J. E. 1986. A graphical analysis of dynamic response of optical bistable devices, *Pub. Electronics Letters*, vol. 22, 1134-1135.

WHEATLEY, P. The optimisation of optically bistable devices, *Symposium on Nonlinear Guided Wave Optics and Fast Optical Switching, University of Glasgow, September 1986.*

WHEATLEY, P., BRADLEY, P. J., WHITEHEAD, M., MIDWINTER, J. E., PARRY, G. 1986. A Novel Non-Resonant Opto-Electronic Logic Gate using a GaAs/AIGa/As Multi-Quantum Well Electro-Absorption Modulator. *IEE Colloquium on Multi-Quantum Wall Devices-Physics, Engineering & Applications, IEE, Savoy Place, London, 8 December 1986.*

WHEATLEY, P., BRADLEY, P. J., PARRY, G., WHITEHEAD, M., MIDWINTER, J. E., (with Mistry, P., Pate, M. A., Roberts, J. S.) 1987. Novel non-resonant optoelectronic logic devices. *Electron. Lett.*, vol. 23, 92.

WHEATLEY, P., WHITEHEAD, M., BRADLEY, P. J., PARRY, G., MIDWINTER, J. E., (with Mistry, P., Pate, M. A., and Roberts, J. S.) 1987. A hard-limiting optoelectronic logic device. *Tech. Digest of Photonic Switching Conf. Nevada. OSA Technical Digest Series*, vol. 13, FA3-1.

WHEATLEY, P., MIDWINTER, J. E. 1987. Operating curves for optical bistable devices. *IEEE/OSA Topical meeting on Photonic Switching, Incline Village, Nevada, March 1987.*

WINGHAM, D. . 1986. An experimental study of the penetration of a water sediment interface by a parametric beam. *J. Acoust. Soc. Am.*, vol. 79 no. 2, 363-374.

WINGHAM, D. J., PACE, N. G. 1986. The post-critical penetration of low frequency parametric beams through a water sediment interface. In *Ocean Seismo-Acoustics*, 801-810. T. Akal, and J. Berkson (editors). (New York Press).

WINGHAM, D. J., RAPLEY, C. G., GRIFFITHS, H. 1986. New Techniques in radar altimeter tracking systems, *Proc. IEEE Geoscience Remote Sensing 1986 Symposium, Zurich, 8-11 September,* 1339-1344. T. D. Guyenne and J. J. Hunt, (editors). (Noordwijk, The Netherlands: Publications Branch, ESTEC).

WINGHAM, D. J. 1986. An automatic tracking mode switching algorithm for the ERS-1 altimeter. *Ibid.*, 185-190.

WINGHAM, D. J. 1987. Electron synchrotron radiation in the far infrared, *Phys. Rev. D.*, vol. 35, no. 8, 2584-2594.

WINGHAM, D. J. 1987. Normal incidence radar returns over sea ice. In *Proc. URSI 1987 Conference,* J. Askne (editor), Gotenburg 9-12 January 1987.

WINGHAM, D. J. 1987. Satellite altimeter tracking over topographic terrain. *Advances in Microwave Remote Sensing, Conference, Oxford, 24-25 March 1987.*

ZERVAS, M. N., YOUNGQUIST, R. C. 1986. Subharmonies, chaos and hysteresis in piezoelectric fibre-optic phase modulators. *Proc. 4th Int. Conf. on Optical Fibre Sensors, Tokyo, 7-9 October 1986,* 343-346.

MECHANICAL ENGINEERING

ASTON, J. G. L., BECK, M. P., RYDILL, L. J. R. 1987. Improving the safety of ro-ro ships. *The Naval Architect*, April 1987, 137-140.

ASTON, J. G. L. 27 April 1987. ITV, World in Action 'Attention all shipping'.

ASTON, J. G. L. 22 June 1987. BBC 1, Panorama 'Sailing too close to disaster'.

BARCLAY, W. H. and THALAYASINGAM., S. 1986. Self-excited oscillations in thin-walled collapsible tubes. *Med & Biol. Eng. & Comp.*, vol. 24, 482-487.

BETTS, C. V., CLAYTON, B. R. 1987. A possible maritime future for surface effect craft in the UK. In Proc. *Symp: Ram Wing and Ground Effect Craft, London 19 May 1987.* (London; Royal Aeronautical Society) 6.1-6.39.

BETTS, C. V. 1986. The MSc ship design exercise at UCL. *Engineering Design Education*, Autumn 1986, 49-53.

BETTS, C. V. 1986. Inaugural Lecture: Engineering design at sea? London, 30 October 1986. (UCL, Dept of Mechanical Engineering), 33 pp.

BETTS, C. V., FERRIERO, L. D., GRZESKOWIAK, S. R., McDONALD, N. A., PARLETT, P. J. 1987. Design study for an anti-submarine warfare SWATH frigate. *In Proc. International Symp. Anti-Submarine Warfare, London, 11-13 May 1987.* (London: RINA) vol. II, Paper 21; vol. III, 63-69.

BETTS, C. V., 27 April 1987. ITV, Granada, World in Action, 'Attention all shipping'.

BETTS, C. V., 22 June 1987. BBC 1, Panorama, 'Sailing too close to disaster'.

BETTS, C. V., 23 June 1987. BBC Radio Sussex, Midday Show.

BOND, L. J. 1987. Review of D. O. Thompson and D. E. Chimenti (editors) *Review of Progress in Quantitative NDE, vol. 5, IEE Proc.*, Part A, vol. 134, 307-308.

BOND, L. J., CHALONER, C. A. 1986. Ultrasonic inversion: a direct and an indirect method. In *Review of Progress in Quantitative NDE,* vol. 6A, 563-571. D. O. Thomspon and D. E. Chamenti (editors). (New York: Plenum).

BOND, L. J., CHALONER, C. 1987. Born Inversion. *IEE Proc.*, part A, vol. 134, 257-265.

BOND, L. J., CHALONER, C. A. 1986. The Inverse Born Technique and its Application. *Proc., 21st Annual British Conf. on NDT. Newcastle, 16-18 September 1986.* 277-288.

BOND, L. J., HONG, M. and HENRY, M. 1986. Application of the finite difference method in seismic source and wave diffraction simulation. *Geophysical J.*, RAS. vol. 87, 731-752.

BOND, L. J., SAFFARI, N. 1986. Using leaky Rayleigh waves for defect characterisation. *21st Annual British Conf. on NDT, Newcastle, 16-18 September 1986.* 289-300.

BOND, L. J., SAFFARI, N., PANJANI, M. 1986. Modelling ultrasonic waves using finite difference methods. In *Review of Progress in Quantitative NDE*, vol. 6A, 135-144. D. O. Thompson and D. E. Chamenti (editors). (New York: Plenum).

BROOME, D. R., 1986. Intelligent manipulators for automated subsea inspection. *IEE Colloquium on Robotics in NDT London, 5 October 1986.*

BROOME, D. R., 1987. (with Jeffreys, E. R., Goheen, K. R.) Robust self-designing controllers for Underwater Vehicles. *Trans. ASME J. of Offshore Mechanics and Arctic Engineering*, vol. 109, no. 2, 170-178.

CLAYTON, B. R. (with Bishop, R. E. D.) 1986. *Mechanics of Marine Vehicles* (Russian Edition, revised). (Leningrad: Shipbuilding) 434 pp.

CLAYTON, B. R. 1986. Aerodynamic force coefficients determined from a vertical axis wind turbine simulator. *Proc. International Conf: Aerodynamics at Low Reynolds Numbers, London 15-18 October 1986.* (London: Royal Aeronautical Society) 35.1-35.35.

CLAYTON, B. R. (with Satchwell, C. J.) 1987. Theory, technology and economics of wind assisted ship propulsion. *Proc. 9th BWEA Wind Energy Conversion Conf, Edinburgh. 1-3 April 1987.* (Bury St Edmunds: Mechanical Engineering Press) 299-314.

CLAYTON, B. R. 1987. Wind-assisted ship propulsion. *Physics in Technology*, vol. 18, 53-60.

CLAYTON, B. R. 1987. Over or under? The future role of hovercraft as high-speed Channel ferries. *Endeavour*, vol. 11, no. 1, 29-35.

CLAYTON, B. R. (with Morsi, Y. S. M.) 1987. Determination of principal characteristics of turbulent swirling flow along annuli: numerical analysis. *Int. J. Heat and Fluid Flow*, vol. 7, 208-222.

CLAYTON, B. R. (with others) 1987. *Wind power for the UK.* (British Wind Energy Association Pubn), 25 pp.

COLLINS, R. (with others) 1986. The modelling of electrical current NDT methods and its application to weld testing (Part 1). *Brit. J. of NDT.* vol. 28, 286-294.

COLLINS, R. (with others) 1986. The modelling of electrical current NDT methods and its application to weld testing (Part 2). *Ibid.*, 361-370.

COLLINS, R. (with Shang, H. M., Haq, R. Michael, D. H.) 1987. The detection and measurement of symmetric corner cracks by the a.c. field method. *J. NDE*, vol. 5, no. 3/4, 169-177.

COLLINS, R. (with Michael D. H.) 1987. Recent studies in modelling for the a.c. field measurement technique. In *Review of progress in quantitative NDE vol. 6A*, 193-200. D. O. Thompson and D. E. Chimenti (editors). (New York: Plenum).

CONNOLLY, M. P., DOVER, W. D. "The measurement and analysis of fatigue crack growth in tubular welded y and k-joints". *International Conf. Fatigue of Engineering materials and structures.* Sheffield, 1986. Paper C254/86.

CONNOLLY, M. P., COLLINS, R. 1987. The measurement and analysis of semi-elliptical surface fatigue crack growth. *Engineering Fracture Mechanics*, vol. 26, no. 6. 897-911.

DHARMAVASAN, S. (with Webborn, T. J. C.) 1986. Die Bestimmung der Restlebensdauer bei Ermudungsschaden in geschweissten Rohrkonstruktionen. *Der Maschinenenschaden*, vol. 59, part 4, 173-178.

DOVER, W. D., BOND, L. J. 1986. Weld crack characterisation on offshore structures using AC potential difference and ultrasonics. *NDT International* vol. 19, no. 4, 243-247.

DOVER, W. D., COLLINS, R. (with Michael, D. H.) 1986. The use of a.c. field measurements for crack detection and sizing in air and underwater. *Phil. Trans. R. Soc. Lond.* A320, 271-283.

DOVER, W. D., (with Schultz, W., Pook, L.) 1987. Progress in the development of a Wave Action Standard History (WASH) for fatigue testing relevant to tubular structures in the North Sea. *Symposium on Development of Fatigue Loading spectra, Cincinnati, Ohio, April 1987.*

EATOCK TAYLOR, R., HUNG, S. M., 1987. Second order time harmonic forces on bodies in waves. In *Proc. 2nd International Workshop on Water Waves and Floating Bodies, Bristol. 16-19 March 1987.* 47-51.

EATOCK TAYLOR, R. JEFFERYS, E. R. 1986. Variability of hydrodynamic load predictions for a tension leg platform. *Ocean Engineering*, vol. 13, 449-490.

EATOCK TAYLOR, R. 1986. Low frequency behaviour of compliant offshore structures. Keynote address, *Proc. Third Indian Conf. in Ocean Engineering, Bombay, 11-13 December 1986.* 39.

EATOCK TAYLOR, R., CARTER, M. D. 1986. Analysis of multiple barge tow configurations for deep water towers. Paper 7. *Proc. Int. Conf. Developments in Deeper Water Waters, Royal Inst. Arch. London*, vol. I, Paper 7.

EATOCK TAYLOR, R., HUNG, S. M. 1987. Second order wave diffraction forces on a vertical cylinder in regular waves. *Appl. Ocean Res.*, vol. 9, 19-30.

EATOCK TAYLOR, R., SINCOCK, P. 1987. Comparison of analyses for moored systems in random waves. *J. Offshore Mech. Arctic Eng. ASME*, vol. 109. 133-141.

EATOCK TAYLOR, R., HUNG, S. M. 1987. Some wave load effects in the design of SWATH ships. In *Proc. Third International Symp. Practical Design of Ships and Mobile Units, Trondheim, Norway, 22-26 June 1987,* vol. I, 344-354.

FRENCH, P. C., 1987. Eddy current in a rectangular toroid. *IEE Proc.*, Part A, vol. 134, no. 4, 309-316.

GLINKA, G. 1987. Residual stresses in Fatigue and Fracture: Theoretical Analyses and Experiments. In *Advances in Surface Treatment - Residual Stresses*, A. Niku-Lari, (editor). (London: Pergamon Press). 413-454.

GLINKA, G. 1987. Relations between the strain energy density distribution and elastic-plastic stress-strain fields near cracks and notches and fatigue life prediction. In *Low Cycle Fatigue - Direction for the Future*, 112-125. H. Solomon and B. Leis (editors). (ASTM STP 942 American Society for Testing and Materials).

GLINKA, G., DHARMAVASAN, S., DOVER, W. D., 1987, An analysis of the effect of Residual Stress on Initiation and growth of Fatigue Cracks in Tubular Welded Joints. *Proc. Int. Conf. Steels in Marine Structures, Delft, 15-18 June, 1987.* Amsterdam: Elsevier, 501-512.

GLINKA, G., NEWPORT, A. 1987. Universal features of stress distributions near notches. *International J. of Fatigue*, vol. 9, no. 3, 143-150.

HARRISON, J. H., PATEL, M. H., BROWN, D. T. 1987. Hydrodynamic analysis of marine vehicles with pneumatic compliance. *Trans. RINA*, vol. 129, 223-231.

KAM, J. C. P., TOPP, D. A. 1986. Fracture Mechanics Analysis of Axially Loaded Welded Tubular X Joint Fatigue in Air, including Thickness Effect. In *Proc. of the International Conf. on Steel Structures, Recent Research Advances and their Applications to Design, Budva, Yugoslavia, 29th Sept - 1st Oct 1986.* 725-735.

KAM, J. C. P., TOPP, D. A., DOVER, W. D. 1987. Fracture Mechanics Modelling and Structural Integrity of Welded Tubular Joints in Fatigue. In *Proc. of the 6th International Offshore Mechanics and Arctic Engineering Symposium, ASME, Houston, 1st-6th March 1987.* 279-286.

KAM, J. C. P., GLINKA, G., DOVER, W. D. 1987. Fatigue of Welded Tubular Joints under Simulated Service Loading. *Ibid.*, 395-402.

KAM, J. C. P., 1987. Service Fatigue Load Simulation of Offshore Structures. In *Proc. of the International Conf. on Simulation and Numerical Mathematics, AMSE, Karlsruhe, West Germany, 20-22 July 1987.*

LORD, M. 1987. Curve and surface representation by iterative B-spline fit to a data point set. *Engineering in Medicine*, vol. 16, 29-35.

LORD, M., REYNOLDS, D. P., HUGHES, J. R. 1986. Foot pressure measurement: A review of clinical findings. *J. Biomedical Eng.*, vol. 8, 283-294.

LYONS, G. J., PATEL, M. H. 1986. A prediction technique for vortex-induced transverse response of marine risers and tethers. *J. of Sound and Vibration*, vol. 111, no. 3, 467-487.

LUGG, M. C., COLLINS, R. 1986. Developments in the application of the a.c.f.m. technique for inclined cracks. In *NDT-86, Proc 21st Annual Brit. Conf. NDT.* P. J. Emerson and G. Oates (editors). (Warley: EMAS.) 500-508.

McIVER, M. 1986. The electromagnetic field around a subsurface flaw in a metal. *IMA. J. App. Math.*, vol. 37, 93-111.

NIGHTINGALE, C. J. E., TSATSAMI, V. 1986. Improved cold-starting prospects by studying wall film flow. *Automotive Engineer*, vol. 11, no. 4, 28-34.

NIGHTINGALE, C. J. E. 1986. Review of G. Walker and J. R. Senft *Free Piston Stirling Engines. International J. of Ambient Energy*, vol. 7, no. 4, 217-218.

NIU, X, GLINKA, G. 1987. On the limitations of Petroski-Achenbach Crack Opening Displacement Approximation for the calculation of weight function - do they really exist? *Engineering Fracture Mechanics*, vol. 26, no. 5, 701-706.

NIU, X., GLINKA, G. 1987. The effect of weld geometry on stress intensity factors and fatigue crack growth in weld. In *Proc. of the International Conference on Fatigue of Welded Constructions, Brighton, 1-9 April, 1987.* (The Welding Institute) P2.1 - P2.10.

NIU, X., GLINKA, G. 1987. The weld profile effect on stress intensity factors in weldments. *Int. J. of Fracture,* vol. 35, 3-20.

PATEL, M. H. 1986. On the hydrodynamics of tandem-hull marine vehicles. *J. of Ship Research*, vol. 30, no. 4, 275-286.

PATEL, M. H. 1987. Hydrostatic analysis of marine vehicles with trapped air cavities. *International Shipbuilding Progress*, vol. 34, no. 392, 64-74.

PATEL, M. H., BROWN, D. T. 1987. Analysis and design of catenary mooring systems. In *Advances in Underwater Technology*, vol. 13, 139-157. (London: Graham & Trotman).

PATEL, M. H., JESUDESEN, A. S. 1987. Theory and model tests for the dynamic response for free hanging risers. *J. of Sound & Vibration*, vol. 112 (1) 149-166.

PATEL, M. H., LYONS, G. J. 1987. A general technique for prediction of riser vortex induced response in waves and current. In *Proc. 6th International Symposium on Offshore Mechanics & Arctic Engineering, vol. II, 1-6 March 1987, Houston, Texas.* 175-189.

PATEL, M. H., SEYED, F. B. 1987. Analysis and design considerations for towed pipe lines. In *Proc. 6th International Symposium on Offshore Mechanics & Arctic Engineering, Offshore & Arctic Pipelines, 1-6 March 1987, Houston, Texas.* 17-28.

PLUMB, C. M. 1987. *Propulsion of ASW Vessels*. In *Proc. International Symp: Anti-Submarine Warfare, London, 11-13 May 1987* (London: RINA) vol. 1, 11 pp.

PLUMB, C. M. 1987. *Warship Propulsion System Selection*. (London: Institute of Marine Engineers.) 265 pp.

SMITH, P. R., BOND, L. J., CHALONER, C. A. 1986. Application of forward and inverse scattering models for ultrasonic waves in complex layered structures. In *Review of Progress in Quantitative NDE, Vol 6A*, 117-124. D. O. Thompson and D. Chamenti (editors). (New York: Plenum).

WITZ, J. A., PATEL, M. H. 1987. Control of marine vehicles with pneumatic compliances. *Engineering Structures*, vol. 9, 124-133.

WU, G. X., EATOCK TAYLOR, R. 1987. A treatment of the second order derivatives for a ship advancing in waves. In *Proc. 2nd International Workshop on Water Waves and Floating Bodies, Bristol, 16-19 March 1987,* 137-141.

PHOTOGRAMMETRY AND SURVEYING

ALLAN, A. L., HUDSON, C. 1986. The figure of the earth. In *Proc. Measuring the Earth Symposium, Royal Geographical Society, London 20 November 1986*, 7/1-7/13.

ALLAN, A. L. 1987. The principles of theodolite intersection systems. In *Proc. Industrial application of non-contact measurement, Inst. of Mechanical Engineers, London, 5 March 1987,* 1/1-1/14.

ATKINSON, K. B. 1987. Close range photogrammetry. *Proc. of the Royal Microscopical Society,* vol. 22, 94-95.

ATKINSON, K. B. 1987. Real-time photogrammetry - a new challenge. *Photogrammetric Record,* vol. 12, 369-370.

ATKINSON, K. B. 1987. The President's Address. *Ibid.*, 377-380.

ATKINSON, K. B., WALSH, D. M. A. 1987. *The transportable Reflex Microscope. Non-contact measurement of masonry surfaces.* CEC contract EV3V. 0931. UK(H). iv + 83 pp.

CHAPMAN, D. P. 1987. *Interpolation methods for digital elevation models.* Royal Institution of Chartered Surveyors information package 18. 2 pp.

DOWMAN, I. J., GUGAN, D. J., MENEGUETTE, A. A. 1986. Techniques for mapping and map revision using digital imagery from space. *International Archives of Photogrammetry and Remote Sensing*, vol. 26, no. 4, 529-537.

DOWMAN, I. J., MULLER, J. P. 1986. Real-time photogrammetric input versus digitised maps: accuracy, timeliness and cost. *Proc. Auto Carto London*, vol. 1. 538-543.

DOWMAN, I. J. 1986. China (re)visited. *Photogrammetric Record*, vol. 12, 241-243.

DOWMAN, I. J. 1987. Photogrammetric and remote sensing systems for data processing and analysis. *Ibid.*, 359-361.

DOWMAN, I. J. (with Adams, T. A., Rhind, D. W.) 1987. Landscape by numbers. *Geographical Magazine,* vol. 64, 114-116.

GATES, J. W. C. 1986. The influence of holography on measurement technology. *J. Phys. E: Sci. Instrum.*, vol.19, 998-1007.

GATES, J. W. C. 1987. Progress in imaging sensors. *Photogrammetric Record,* vol. 12, 357-359.

GUGAN, D. J., DOWMAN, I. J. 1986. Design and implementation of a digital photogrammetric system. *International Archives of Photogrammetry and Remote Sensing,* vol. 26, no. 2, 100-109.

GUGAN, D. J. 1987. Practical aspects of topographic mapping from SPOT imagery. *Photogrammetric Record,* vol. 12, 349-355.

HARLEY, I. A. 1987. What role does remote sensing have in civil engineering? *SERC/DOE Civil Engineering Research Newsletter,* 4, 2.

ILIFFE, J. C. 1986. Applied geodesy for particle accelerators. *Land and Minerals Surveying,* vol. 4, 544-545.

ILIFFE, J. C. 1987. Three-dimensional adjustment in a local reference system. In *CERN Accelerator School: applied geodesy for particle accelerators, CERN Geneva, 14-18 April 1986,* S. Turner (editor). (Geneva: CERN) 307-323.

KOO, T. K. 1986. Applying close-range photogrammetry to wood archaeology. *Land and Minerals Surveying,* vol.4, 645-654.

MULLER, J.-P. (with Burnett, J.) 1986. Application of space imagery to mapping Roman floodwater farming systems in Libya. *International Archives of Photogrammetry and Remote Sensing,* vol. 26, no. 4, 575.

MULLER, J.-P., SAKSONO, T. 1986. An evaluation of the potential role of fractals for digital elevation model generation from spaceborne imagery. *Ibid.*, 63.

SEGU, W. P. 1986. Highway route location on mathematical surfaces: photogrammetry application. *Ibid.*, 328-342.

WICKENS, E. H. 1986. Fiducial marks and the analytical plotter. *Photogrammetric Record,* vol. 12, 267.

BARTLETT SCHOOL OF ARCHITECTURE AND PLANNING

BANISTER, D. J. 1986. Unconventional public transport services in the Shire Counties. *Transport and Road Research Laboratory Working Paper 27,* 16 pp.

BANISTER, D. J. 1986. The 1985 Transport Act: social criteria. *Transport and Road Research Laboratory Working Paper 16,* 34 pp.

BANISTER, D. J. (with Taylor, J.) 1987. Community transport in the U.K. In *Transport U.K. 1987: An economic, social and policy audit.* A. J. Harrison (editor). (Newbury: Policy Journals).

CLARKE, LINDA, 1987. Urbanisation as a Production Process: an examination of assumptions and developments within urban studies. *Bartlett International Summer School (BISS) Proceedings,* vol. 8, 116-126.

COLLINS, M. P. 29 May, 1987. Swedish Television Regional News, Drilling for natural gas in the Siljan Ring.

DAVIDSON, JOAN, 1986. A Growing Concern. *The Guardian,* 3 September.

DAVIDSON, JOAN, 1986. Trying to make no place like home. *The Guardian,* 10 December.

DAVIDSON, JOAN, 1987. Farming out the responsibility. *The Guardian,* 4 February.

DAVIDSON, JOAN, 1987. Waste lines. *The Guardian,* 8 April.

DAVIDSON, JOAN, 1987. Building up new values. *The Guardian,* 10 June.

DAVIDSON, JOAN, 1987. The time has come - again. Review of *Report of the UN World Commission on Environment and Development. Town and Country Planning,* vol. 56, no. 6.

DUNSTER, D. 1987. Part 7. The Architecture of the Twentieth Century. In *Sir Banister Fletcher's A History of Architecture, 19th edition,* Chapter 40, Western Europe. J. Musgrove (editor). (London: Butterworths).

DUNSTER, D. 1987. Bureau de Change: the work of Henri Ciriani. *Building Design,* April 24.

FORTY, J. A. 1987. Le Corbusier's British Reputation. In *Le Corbusier Architect of the Century,* 35-41. Catalogue of Exhibition at the Hayward Gallery. (London: Arts Council of Great Britain).

FORTY, J. A. 1986. The National Gallery Extension: Robert Venturi and Denise Scott Brown. *Artscribe,* no. 59, 32-34.

FORTY, J. A. 1986. Taylorism and modern architecture. *Trans. of the Royal Institute of Architects,* no. 9, 72-81.

GELERNTER, M. G. 1987. Drawing lessons from Banister Fletcher. *The Architectural Review,* vol. CLXXXI, no. 1083, 86-88.

GELERNTER, M. G. 1986. Learning from precedents. Review of Roger Clark and Michael Pause. *Precendents in Architecture. The Architectural Review,* vol. CLXXX, no. 1076.

HANSON, JULIENNE M. 1987. Part 1. The Architecture of Eygpt, the Ancient Near East, Greece and the Hellenistic Kingdoms, Chapter, 2, Prehistoric, 24-33. Part 2, The Architecture of Europe and the Mediterranean to the Renaissance, Chapter 8, Prehistoric, 194-209. Part 3, The Architecture of Islam and Early Russia, Chapter 14, Early Asian Cultures, 545-551. Part 4, The Architecture of the Precolonial cultures outside Europe, Chapter 19, Africa, 65-70. In *Sir Banister Fletcher's A History of Architecture, 19th edition.* J. Musgrove (editor). (London: Butterworths).

HARRIS, N. 1986. *The End of the Third World: Newly Industrializing Countries and the Decline of an Ideology.* (London: Tauris) and (London: Penguin) and (New York: Viking). 231 pp.

HARRIS, N. 1986. Theories of Unequal Exchange. *Society and Change,* September. 23-29

HARRIS, N. 25 November, 1986. Canadian Broadcasting corporation, The Money Programme.

HARRIS, N. 30 April, 1987. BBC Radio Leeds, Yorkshire Mixture.

HARRIS, N. 1987. The capitalist revolution. *New Society,* 29 May, 29-31.

HILLIER, W. R. G. 1987. La Morphologie de l'espace urbaine: l'evolution le l'approche syntaxique. *Architecture and Behaviour* (Special issue on the work of the Unit for Architectural Studies), vol. 3, no. 3, 205-216.

HILLIER, W. R. G., HANSON, JULIENNE, M. 1987. The architecture of community. *Ibid.,* 248-271.

HILLIER, W. R. G., HANSON, JULIENNE, M., PEPONIS, J. 1987. Syntactic analysis of settlements. *Ibid.,* 217-230.

HILLIER, W. R. G., BURDETT, R., PEPONIS, J., PENN, A. 1987. Creating life: or does architecture determine anthing? *Ibid.,* 213-246.

IVE, G. J. 1987. Conceptualisation of recent developments in capitalist building production. *Proc. 8th International Summer School, The Production of the Built Environment, Dessau, GDR, September 1986.* (London and Geneva: BISS). 60-66.

LOE, D. L., ROWLANDS, E. 1987. A new approach to lighting education. *Proc. (vol. 1) 21st. Session Commission Internationale de l'Eclairage, Venice, 17-25 June 1987,* 374-375.

LOWE, P. D. (with Bradley, T., Wright, S.) (editors). 1986. *Deprivation and Welfare in Rural Areas,* (Norwich: Geo Books). 229 pp.

LOWE, P. D. (with Bradley, T., Wright, S.) 1986. Rural Deprivation and the Welfare transition. *Ibid.,* 1-39.

LOWE, P. D. (with Cox, G., Winter, M.) (editors). 1986. *Agricuture: People and Policies.* (London: Allen and Unwin). 244 pp.

LOWE, P. D. (with Cox, G., Winter, M.) 1986. Agriculture and conservation in Britain: a policy community under siege. *Ibid.,* 181-185.

LOWE, P. D. (with Cox, G., Winter, M.) 1987. Lanscape protection and nature conservation. In *Rural Planning: Policy into Action,* 57-71. P. Cloke (editor). (London: Harper and Row).

LOWE, P. D. (with Cox, G., Winter, M.) 1986. From state direction to self regulation: the historical development of corporatism in British agriculture. *Policies and Politics,* vol. 14, 475-490.

LOWE, P. D. (with Cox, G., Winter, M.) 1987. Farmers and the state: a crisis for corporatism. *Political Quarterly,* vol. 58, 73-81.

LOWE, P. D. (with Flynn, A.) 1987. The problems of analysing party politics: Labour and Conservative approaches to rural conservation. *Environment and Planning A,* vol. 19, 409-414.

LOWE, P. D. (with Flynn, A.) 1987. Land of hope and housebuilders: the Tories and the countryside. *New Socialist,* April, 16-17.

MARTENS, MAARTJE (with Ball, M., Harloe, M.) 1986. Mortgage finance and owner occupation in Britain and West Germany. *Progress in Planning,* vol. 26, pt. 3, 187-260.

MERRETT, S. R. 1986. *Local Housing Plans: process and product.* (London: London Borough of Haringey). 26 pp.

MERRETT, S. R. 1986. The ready-to-let-supply and take-up; a technique for housing policy analysis. *Housing Review,* vol. 35, no. 5, 155-157.

MERRETT, S. R., SMITH, R. S. G. 1986. Filling the voids. *Housing,* vol. 2,, no. 7, 34-35.

PEPONIS, J. (with Stansall, P.) 1987. Spatial culture. *Designers Journal,* no. 27, June. 52-56.

RYSER, JUDITH (with Rautsi, J.) (editor). 1986. *The Pohja Case: A Finnish Municipality in Transition* (Ministry fo the Environment, Finland). 156 pp.

RYSER, JUDITH. 1987. Impacts of the Channel Tunnel on Local and Regional Development with special attention to institutional response and the land price formation. *12th seminar of the International Researchers cooperation, Orsa, Sweden, 28 May - 1 June 1986.* 50 pp.

RYSER, JUDITH (with Arnaud, C., Fraudin, C.) 1987. *Maitrise d'ouvrage publique dans quatre pays Europeans: Grande Bretagne, allemagne, Italie, Suede* (Ministere de l'equipment, dulogement de l'amenagement du territoire et des transports). 40 pp.

RYSER, JUDITH (with Arnaud, C., C. Driant, J. C., Dini, L.) 1986. Les paradoxes de la mobilite residentielle dans les zones de conversion, In *Espaces prospectifs* (Paris: Delegation a l'amenagement du territoire et a l'action regionale). 39 pp.

SIMMIE, J. M. 1986. Structure plans, housing and political choice in the South East. *Catalyst,* vol. 2, no. 2, 71-83.

SIMMIE, J. M. (with James, N.) 1987. Will science parks generate the fifth wave? *Planning Outlook,* vol. 29, no. 2, 54-57.

SMITH, R. S. G. (with Ramsay, E., Blunden, Frances.) 1987. *Housing Associations and Home Ownership: Summary of the 1985 Survey.* (London: National Federation of Housing Associations.) 30 pp.

SMITH, R. S. G. (with Ramsay, E.) 1987. *1986 Survey of Housing Associations in Wales: The Full Results.* (London: National Federation of Housing Associations). 111 pp.

SMITH, R. S. G. (with Ramsay, E.) 1987. *Housing Associations in Wales: Summary of the 1986 Survey.* (London: National Federation of Housing Associations).

SMITH, R. S. G., MERRETT, S. R. 1987. Empty dwellings; the use of rating records in identifying and monitoring vacant private housing in Britain. *Environment and Planning A,* vol. 19, no. 6, 783-791.

SYMES, M. S. 1987. The social and behavioural content of design method - an Australian case study. In *Public Environments: Proc. of the 18th Annual Conference of the Environmental Design Research Association; Ottawa, Canada, 29 May - 2 June 1987,* 111.

SYMES, M. S. (with Tiernan, Carole, Sprckelmeyer, K., Robinson, Julia, Sonny Palmer, A. E., Luckey, Donna). 1987. A forum on design education. *Ibid.*, 279-280.

TABOR, O. P. 1986. Upright Scarpa, Review of Francesco Dalco, Guiseppe Mazzariol (editors). *Carlo Scarpa: the Complete Works. Architectural Review,* vol. CIXXX, 107.

WATSON, N. F., ROWLANDS, E., LOE, D. L. 1986. Laboratory lighting. In *Design for Research: Principles of Laboratory Architecture,* 92-103. S. Braybrooke (editor). (New York: John Wiley and Sons).

FACULTY OF MEDICAL SCIENCES

ANATOMY AND DEVELOPMENTAL BIOLOGY

ADAM, J., ROSENDAAL, M. 1987. Patterns of recovery of high proliferation potential colony-forming cells after stressing the haemopoietic system-I. *Leukemia Res.*, vol. 11, 421-427.

ALAFACI, C., BURNSTOCK, G. (with Cowen, T., Crockard, H. A.) 1986. Perivascular nerve types supplying cerebral blood vessels of the gerbil. *Acta Physiol. Scand.*, vol. 127, suppl. 552, 9-12.

ALLEN, T. G. J., BURNSTOCK, G. 1987. Intracellular studies of the electrophysiological properties of cultured intracardiac neurones of the guinea-pig. *J. Physiol. (Lond.)*, vol. 388, 349-366.

ARNETT, T. R. (with Dempster, D. W.) 1986. Effect of pH on bone resorption by rat osteoclasts *in vitro. Endocrinology,* vol. 119, 119-124.

ARNETT, T. R. (with Dempster, D. W.) 1987. A comparative study of disaggregated chick and rat osteoclasts *in vitro:* effects of calcitonin and prostaglandins. *Endocrinology,* vol. 120, 602-608.

BANNERMAN, P. G. C., MIRSKY, R., JESSEN, K. R. (with Timpl, R., Duance, V. C.) 1986. Light microscopic immunolocalization of laminin, type IV collagen, nidogen, heparan sulphate proteoglycan and fibronectin in the enteric nervous system of rat and guinea pig. *J. Neurocytol.*, vol. 15, 733-743.

BECKER, D. L., COOK, J. E. 1986. Refinement of brachial selection by regenerating axons in the goldfish optic tract may be due to collateral loss. *J. Physiol. (Lond.)*, vol. 382, 175P.

BELAI, A., BURNSTOCK, G. 1987. Selective damage of intrinsic calcitonin gene-related peptide-like immunoreactive enteric nerve fibres in streptozotocin-induced diabetic rats. *Gastroenterology,* vol. 92, 730-734.

BELLAIRS, R. 1986. The tail bud and cessation of segmentation in the chick embryo. In *Somites in Developing Embryos,* 161-178. R. Bellairs, D. A. Ede and J. W. Lash (editors). (New York: Plenum Press).

BELLAIRS, R. (with Ede, D. A., Lash, J. W.) 1986. *Somites in Developing Embryos.* (New York: Plenum Press).

BELLAIRS, R., SANDERS, E. J. 1986. Somitomeres in the chick tail bud: an SEM study. *Anat. Embryol.*, vol. 175, 235-240.

BELLAIRS, R., VEINI, M. 1986. Heat shock effects in chick embryos. In *Somites in Developing Embryos,* 135-147. R. Bellairs, D. A. Ede and J. W. Lash (editors). (New York: Plenum Press).

BHIDE, P. G., LIEBERMAN, A. R. (with Campbell, G.) 1987. Transient dendritic invagination of optic tract axons during early development of hamster visual system: implications for the formation of the retino-geniculate pathway. *J. Anat.*, vol. 152, 242-243.

BOYDE, A. 1987. Colour-coded stereo images from the tandem scanning reflected light microscope (TSRLM). *J. Microsc.*, vol. 146, 137-142.

BOYDE, A. 1987. Recent developments in tandem scanning reflected light microscopy. *Proc. R. Microsc. Soc.*, vol. 21, S34.

BOYDE, A. 1987. Applications of tandem scanning reflected light microscopy and three-dimensional imaging. *Ann. N. Y. Acad. Sci.*, vol. 483, 428-439.

BOYDE, A. (with Lester, K. S., Gilkeson, C., Archer, M.) 1987. Marsupial and monotreme enamel structure. *Scan. Microsc.*, vol. 1, 401-420.

BOYDE, A. (with Petran, M., Hadravsky, M., Benes, J.) 1987. In vivo microscopy using tandem scanning microscope. *Ann. N. Y. Acad. Sci.*, vol. 483, 440-447.

BOYDE, A. (with Shapiro, I. M.) 1987. Morphological observations concerning the pattern of mineralization of the normal and the rachitic chick growth cartilage. *Anat. Embryol.*, vol. 175, 457-466.

BOYDE, A., HOWELL, P. G. T., FRANC, F. 1986. Simple SEM stereophotogrammetric method for three-dimensional evaluation of features on flat substrates. *J. Microsc.*, vol. 143, 257-264.

BOYDE, A., JONES, S. 1987. Early scanning electron microscopic studies of hard tissue resorption: their relation to current concepts reviewed. *Scan. Microsc.*, vol. 1, 369-381.

BRECKENRIDGE, L. J., WARNER, A. E. (with Warren, R. L.) 1987. Lithium inhibits morphogenesis of the nervous system but not neuronal differentiation in *Xenopus laevis*. *Development*, vol. 99, 353-370.

BURNSTOCK, G. 1986. Purines as cotransmitters in adrenergic and cholinergic neurones. In *Coexistence of Neuronal Messengers: A New Principle in Chemical Transmission. Progress in Brain Research*, vol. 68, 193-203. T. Hökfelt, K. Fuxe and B. Pernow (editors). (Amsterdam: Elsevier).

BURNSTOCK, G. 1986. Dynamic interaction between growing autonomic nerves and smooth muscle cells as demonstrated by time-lapse cinematography of tissue cultures. In *Neural Regulation of Brain Circulation*, 561-568. C. Owman and J. E. Hardebo (editors). (Amsterdam: Elsevier).

BURNSTOCK, G. 1986. Purinergic receptors. In *Discussions in Neurosciences*, vol. III, no. 3: *Transduction of Neuronal Signals*, 48-55. P. J. Magistretti, J. H. Morrison and T. D. Reisine (editors). (Geneva: FESN).

BURNSTOCK, G. 1986. Neurotransmitters, neuromodulators and co-transmitters in the autonomic nervous system. *J. Auton. Nerv. Syst.*, suppl., 319-330.

BURNSTOCK, G. 1987. Theraputic aspects of stimulating or blocking adenosine (P_1-) and ATP (P_2-) purinoceptors. In *Trends in Medicinal Chemistry*, 369-382. E. Mutschler and E. Winterfeldt (editors). (Weinheim: VCH Verlagsgesellschaft).

BURNSTOCK, G. 1987. Local control of blood pressure by purines. *Blood Vessels*, vol. 24, 156-160.

BURNSTOCK, G. (with Fehér, E.) 1986. Electron microscopic study of neuropeptide Y-containing nerve elements of guinea-pig small intestine. *Gastroenterology*, vol. 91, 956-965.

BURNSTOCK, G. (with Fehér, E.) 1987. Ultrastructural identification of vasoactive intestinal ploypeptide- and neuropeptide Y-containing nerve fibres in the vas deferens of the guinea-pig. *J. Auton. Nerv. Syst.*, vol. 19, 235-242.

BURNSTOCK, G. (with Fehér, E., Varndell, I. M., Polak, J. M.) 1986. Calcitonin gene-related peptide-immunoreactive nerve fibres in the small intestine of the guinea-pig: electron-microscopic immunocytochemistry. *Cell Tissue Res.*, vol. 245, 353-358.

BURNSTOCK, G. (with Houston, D. A., Vanhoutte, P. M.) 1987. Different P_2-purinergic receptor subtypes of endothelium and smooth muscle in canine blood vessels. *J. Pharmacol. Exp. Ther.*, vol. 241, 501-506.

BURNSTOCK, G. (with Jones, R.) 1986. Effects of activity on restorative processes in the autonomic nervous system. In *Electrical Stimulation and Neuromuscular Disorders*, 80-87. W. Nix and G. Vrbová (editors). (Berlin: Springer).

BURNSTOCK, G. (with Travo, P., Bodin, P., Stoclet, J.-C.) 1987. Quantitative method for the study of the morphological changes induced by vasoactive agents in single aortic myocytes grown in primary cultures. *Lab. Invest.*, vol. 56, 335-343.

BURNSTOCK, G., HOPWOOD, A. M., HOYLE, C. H. V., REILLY, W. M., SAVILLE, V., STANLEY, M. D. A., WARLAND, J. J. I. 1986. Reactive blue-2 selectively antagonises the relaxant responses to ATP and its analogues which are mediated by the P_{2y} purinoceptor. *Br. J. Pharmacol.*, vol. 89, 857P.

BURNSTOCK, G., KENNEDY, C. 1986. Purinergic receptors in the cardiovascular system. In *Progress in Pharmacology,* vol. 6, no. 2: *Receptors in the Cardiovascular System,* 111-132. P. A. van Zwieten and E. Schönbaum (editors). (Stuttgart: Gustav Fisher).

BURNSTOCK, G., WARLAND, J. J. I. 1987. A pharmacological study of the rabbit saphenous artery *in vitro:* a vessel with a large purinergic contractile response to sympathetic nerve stimulation. *Br. J. Pharmacol.*, vol. 90, 111-120.

BURNSTOCK, G., WARLAND, J. J. I. 1987. P_2-purinoceptors of two subtypes in the rabbit mesenteric artery: reactive blue 2 selectively inhibits responses mediated via the P_{2y}- but not the P_{2x}-purinoceptor. *Ibid.*, 383-391.

CODERRE, T. J., WALL, P. D. 1987. Ankle joint urate arthritis (AJUA) in rats: an alternative animal model of arthritis to that produced by Freund's adjuvant. *Pain,* vol. 28, 379-393.

COOK, A. J., WOOLF, C. J., WALL, P. D. 1986. Prolonged C-fibre mediated facilitation of the flexion reflex is not due to changes in afferent terminal or motoneurone excitability. *Neurosci. Lett.*, vol. 70, 91-96.

COOK, A. J., WOOLF, C. J., WALL, P. D. (with McMahon, S. B.) 1987. Dynamic receptive field plasticity in rat spinal cord dorsal horn following C-primary afferent input. *Nature,* vol. 325, 151-153.

COOK, J. E. 1987. Full spatial refinement of the regenerated goldfish retinotectal projection can occur in darkness, though not in diffuse stroboscopic light. *Neurosci. Lett.*, suppl. 29, S31.

COWEN, T., ALAFACI, C., BURNSTOCK, G. (with Crockard, H. A.) 1986. 5-HT-containing nerves to major cerebral arteries of the gerbil originate in the superior cervical ganglia. *Brain Res.*, vol. 384, 51-59.

COWEN, T., BURNSTOCK, G. 1985. Image analysis of catecholamine fluorescence and immunofluorescence in studies on blood vessel innervation. In *Wenner-Gren International Symposium Series,* vol.42: *Quantitative Neuroanatomy in Transmitter Research,* 213-229. L. F. Aquati and K. Fuxe (editors). (London: Macmillan).

COWEN, T., BURNSTOCK, G. 1986. Developmental, ageing, and plasticity of perivascular autonomic nerves. In *Developmental Neurobiology of the Autonomic Nervous System,* 211-232. P. M. Gootman (editor). (Clifton, New Jersey: Humana Press).

CROWE, R., BURNSTOCK, G. (with Light, K., Chilton, C. P.) 1986. Vasoactive intestinal polypeptide-, somatostatin- and substance P-immunoreactive nerves in the smooth and striated muscle of the intrinsic external urethral sphincter of patients with spinal cord injury. *J. Urol.*, vol. 136, 487-491.

CROWE, R., LINCOLN, J., BURNSTOCK, G. (with Lagnado, M. L. J.) 1987. Reduction of nerves containing vasoactive intestinal polypeptide and serotonin, but not neuropeptide Y and catecholamine, in cerebral blood vessels of the 8-week streptozotocin-induced diabetic rat. *Blood Vessels,* vol. 24, 169-180.

DANGAIN, J., VRBOVÁ, G. 1986. Effect of electrical stimulation on muscle from dystrophic mice. In *Recent Achievements in Restorative Neurology 2. Progressive Neuromuscular Diseases*, 254-265. M. R. Dimitrijevic, B. Kakulos and G. Vrbová (editors). (Basel: Karger).

DANGAIN, J., VRBOVÁ, G. 1986. Response of normal and dystrophic muscles to increased functional demand. *Exp. Neurol.*, vol. 94, 796-801.

DANGAIN, J., VRBOVÁ, G. (with Pette, D.) 1987. Development changes in succinate dehydrogenase activity in muscle fibres from normal and dystrophic mice. *Exp. Neurol.*, vol. 95, 224-234.

DEAN, M. C. (with Stringer, C. B., Bromage, T. G.) 1986. Age at death of the Neanderthal child from Devil's Tower, Gibraltar and the implications for studies of general growth and development in Neanderthals. *Am. J. Phys. Anthropol.*, vol. 70, 301-309.

DEAN, M. C. (with Wood, D. A.) 1986. Patterns of basicranial anatomy in hominid evolution: an exercise in systematic and phylogenetic analysis. In *Définition et Origines de l'Homme: Table Ronde Internationale No 3 CNRS, Paris, 5-8 July 1983*, 239-246.

ENTWISTLE, A., CURTIS, D. H., ZALIN, R. J. 1986. Myoblast fusion is regulated by a prostanoid of the one series independently of a rise in cyclic AMP. *J. Cell Biol.*, vol. 103, 857-866.

FITZGERALD, M. 1987. Cuntaneous primary afferent properties in the hindlimb of the neonatal rat. *J. Physiol. (Lond.)*, vol. 383, 79-92.

FITZGERALD, M. 1987. The prenatal growth of fine diameter afferents into the rat spinal cord - a transganglionic study. *J. Comp. Neurol.*, vol. 261, 98-104.

FITZGERALD, M. 1987. Spontaneous and evoked activity of foetal primary afferents *in vivo*. *Nature*, vol. 326, 603-605.

GLICKSTEIN, M. (with Mattelli, M., Camarda, R., Rizzolatti, G.) 1986. Afferent and efferent projections of inferior area 6 in the macaque monkey. *J. Comp. Neurol.*, vol. 251, 281-298.

GLICKSTEIN, M., LEGG, C. R., MERCIER, B. E. 1987. Lamina organization of the cortex in the posteromedial barrel field of rats. *J. Physiol. (Lond.)*, vol. 388, 42P.

GREEN, C. R. (with Fraser, S. E., Bode, H. R., Gilula, N. B.) 1987. Selective disruption of gap junctional communication interferes with a patterning process in *Hydra*. *Science*, vol. 237, 49-55.

GREEN, C. R. (with Zimmer, D. B., Evans, W. J., Gilula, N. B.) 1987. Topological analysis of the major protein in isolated intact rat liver gap junctions and gap junction-derived single membrane structures. *J. Biol. Chem.*, vol. 262, 7751-7763.

GREEN, C. R. (and others) 1987. Gap junctions are involved in a patterning process in *Hydra*. In *Genetic Regulation of Development*, 245-261. W. F. Loomis (editor). (New York: A. R. Liss.)

HASSALL, C. J. S., BUCKLEY, N. J., BURNSTOCK, G. 1987. Autoradiographic localisation of muscarinic receptors on guinea pig intracardiac neurones and atrial myocytes in culture. *Neurosci. Lett.*, vol. 74, 145-150.

HOPWOOD, A. M., BURNSTOCK, G. 1987. ATP mediates coronary vasoconstriction via P_{2x}-purinoceptors and coronary vasodilatation via P_{2y}-purinoceptors in the isolated perfused rat heart. *Eur. J. Pharmacol.*, vol. 136, 49-54.

HOWELL, P. G. T., BOYDE, A. (with Ross, H. F.) 1986. A three axis stereocomparator for scanning electron microscopic photogrammetry - RS3. *Scanning*, vol. 8, 182-186.

HOYLE, C. H. V., BURNSTOCK, G. (with Jass, J., Lennard-Jones, J. E.) 1986. Enkephalins inhibit non-adrenergic, non-cholinergic neuromuscular transmission in the human colon. *Eur. J. Pharmacol.*, vol. 131, 159-160.

HOYLE, C. H. V., BURNSTOCK, G. (with Manzini, S.) 1986. An electrophysiological analysis of the effect of reactive blue 2, a putative P_2-purinoceptor antagonist, on inhibitory junction potentials of rat caecum. *Eur. J. Pharmacol.*, vol. 127, 197-204.

HOYLE, C. H. V., MOSS, H. E., BURNSTOCK, G. 1986. Ethylcholine mustard aziridinium ion (AF64A) impairs cholinergic neuromuscular transmission in the guinea-pig ileum and urinary bladder, and cholinergic neuromodulation in the enteric nervous system of the guinea-pig distal colon. *Gen. Pharmacol.*, vol. 17, 543-548.

JAMES, G. O., HARDIMAN, M. J., YEO, C. H. 1987. Hippocampal lesions and trace conditioning in the rabbit. *Behav. Brain Res.*, vol. 23, 109-116.

JESSEN, K. R., HILLS, J. M., SAFFREY, M. J. 1986. Immunohistochemical demonstration of GABAergic neurons in the enteric nervous system. *J. Neurosci.*, vol. 6, 1628-1634.

JESSEN, K. R., MIRSKY, R. 1986. Glial cells of the brain and peripheral nervous system: some new perspectives. In *Recent Advances in Neuropathology*, vol. 3, 1-24, J. B. Cavanagh (editor). (London: Churchill Livingstone).

JESSEN, K. R., MIRSKY, R. (with Samuel, N. M., Grange, J. M.) 1987. Gamma interferon, but not *Mycobacterium leprae*, induces major histocompatibility class II antigens on cultured rat Schwann cells. *J. Neurocytol.*, vol. 16, 281-287.

JESSEN, K. R., MIRSKY, R., HILLS, J. M. 1986. GABAergic neurons in the vertebrate peripheral nervous system. In *GABAergic Mechanisms in the Mammalian Periphery*, 117-134. S. L. Erdö and N. G. Bowery (editors). (New York: Raven Press).

JESSEN, K. R., MIRSKY, R., HILLS, J. M. 1987. GABA as an autonomic neurotransmitter: studies on intrinsic GABAergic neurons in the myenteric plexus of the gut. *Trends Neurosci.*, vol. 10, 255-262.

KIRKPATRICK, K., BURNSTOCK, G. 1987. Sympathetic nerve-mediated release of ATP from the guinea-pig vas deferens is unaffected by reserpine. *Eur. J. Pharmacol.*, vol. 138, 207-214.

LEFFORD, F., 1987. Women doctors: a quarter century track record. *Lancet*, vol. i, 1254-1256.

LEFFORD, F. (with Edwards, J. C. W.) 1986. Nailfold capillary microscopy in connective tissue disease: a quantitative morphological analysis. *Ann. Rheum. Dis.*, vol. 45, 741-749.

LIEBERMAN, A. R. 1986. Commentary on: The axon reaction: a review of the principal features of perikaryal responses to axon injury (Citation Classic). *Current Contents (Life Sciences)*, vol. 29, 24.

LIEBERMAN, A. R. (with Tohyama, K., Ide, C.) 1986. Immunohistochemical studies of peripheral nerve regeneration. In *Proc. XIth Int. Congr. Electron Microscopy, Kyoto*, 3209-3210.

LIEBERMAN, A. R., PARNAVELAS, J. G. (with Brecha, N.) 1986. Immunocytochemical evidence that substance P (SP) may be a transmitter or neuromodulator at rabbit retinogeniculate synapses. *J. Physiol. (Lond.)*, vol. 382, 117P.

LINCOLN, J., CROWE, R., BURNSTOCK, G. (with Blacklay, P. F., Pryor, J. P., Lumley, J. S. P.) 1987. Changes in the VIPergic, cholinergic and adrenergic innervation of human penile tissue in diabetic and non-diabetic impotent males. *J. Urol.*, vol. 137, 1053-1059.

LOWRIE, M. B., VRBOVÁ, G. (with Krishnan, S.) 1987. Permanent changes in muscle and motoneurones induced by nerve injury during a critical period of development of the rat. *Dev. Brain. Res.*, vol. 31, 91-101.

MERCIER, B., LEGG, C., GLICKSTEIN, M. 1986. Subcortical projections from the postremedial barrel subfield in rats. *Neurosci. Lett.*, suppl. 26, S119.

MIRSKY, R., JESSEN, K. R., 1987. Molecular properties of peripheral glia. In *NATO ASI Series H*, vol. 2: *Glial-Neuronal Communication in Development and Regeneration*, 55-62. H. H. Althaus and W. Seifert (editors). (Berlin: Springer).

MIRSKY, R., JESSEN, K. R. (with Samuel, N. M., Grange, J. M.) 1987. Expression of major histocompatibility complex class I and class II antigens in human Schwann cell cultures and effects of infection with *Mycobacterium leprae. Clin. Exp. Immunol.*, vol. 68, 500-509.

MIRSKY, R., JESSEN, K. R. (with Schachner, M., Gordis, C.) 1986. Distribution of adhesion molecules N-CAM and L1 on peripheral neurons and glia in adult rats. *J. Neurocytol.*, vol. 15, 799-815.

NAVARRETTE, R., SHAHANI, V., VRBOVÁ, G. 1987. Permanent changes of motor reflexes induced by postjunctional nerve injury in the rat. *J. Physiol. (Lond.)*, vol. 378, 40P.

PARNAVELAS, J. G. 1986. Morphology and distribution of peptide-containing neurones in the cerebral cortex. In *Progress in Brain Research*, vol. 66, 119-134. P. C. Emson, M. N. Rossor and M. Tohyama (editors). (Amsterdam: Elsevier).

PARNAVELAS, J. G. (with Crunelli, V., Leresche, N.) 1986. X- and Y-cells identified in the cat lateral geniculate nucleus *in vitro. Brain Res.*, vol. 380, 371-374.

PARNAVELAS, J. G. (with Dinopoulos, A., Eckenstein, F.) 1986. Morphological characterization of cholinergic neurons in the horizontal limb of the diagonal band of Broca in the basal forebrain of the rat. *J. Neurocytol.*, vol. 15, 619-628.

PARNAVELAS, J. G. (with Papadopoulos, G. C., Buijs, R.) 1987. Monoaminergic fibres form conventional synapses in the cerebral cortex. *Neurosci. Lett.*, vol. 76, 275-279.

PARNAVELAS, J. G., LIEBERMAN, A. R. (and others) 1987. Substance P-immunoreactive retinal ganglion cells and their central axon terminals in the rabbit. *Nature,* vol. 327, 155-158.

PEGINGTON, J. 1987. *The Inguinal Region*. A pilot interactive videodisc. Databank of images under external computer control. Produced by University of London Audiovisual Centre, Department of Trade and Industry, and Thorn EMI.

PEGINGTON, J. (and others) 1986. Bone scintigraphy in the management of x-ray-negative potential scaphoid fractures. *Arch. Emerg. Med.*, vol. 3, 235-242.

PEGINGTON, J. (and others) 1986. Anatomy of the accessory nerve and its cervical contributions in the neck. *Head Neck Surg.*, vol. 9, 111-115.

PITTAM, B. S., BURNSTOCK, G. (with Purves, R. D.) 1986. Urinary bladder intra-mural neurones: an electrophysiological study utilizing a tissue culture preparation. *Brain Res.*, vol. 403, 267-278.

REID, S. A. 1986. A study of lamellar organisation in juvenile and adult human bone. *Anat. Embryol.*, vol. 174, 329-338.

REID, S. A. 1987. Micromorphological characterisation of normal human bone surfaces as a function of age. *Scan. Microsc.*, vol. 1, 579-597.

REID, S. A., BOYDE, A. 1987. Changes in the mineral density distribution in human bone with age: image analysis using backscattered electronics in the SEM. *J. Bone Min. Res.*, vol. 2, 13-22.

REILLY, W. M., BURNSTOCK, G. 1987. The effect of ATP analogues on the spontaneous electrical and mechanical activity of rat portal vein longitudinal muscle. *Eur. J. Pharmacol.*, vol. 138, 319-325.

REILLY, W. M., HOYLE, C. H. V., BURNSTOCK, G. 1987. Pre- and postjunctional adrenoceptor types in the circular muscle of the guinea-pig caecum. *Naunyn-Schmiedeberg's Arch. Pharmacol.*, vol. 336, 37-47.

ROSENDAAL, M. (and others) 1986. Regulation of very primitive, multipotent, hemopoietic cells by hemopoietin-1. *Cell*, vol. 45, 667-674.

SHIPP, S., ZEKI, S. 1987. Anatomical demonstration of the repetitive representation of the vertical meridian in area V6 of macaque monkey visual cortex. *Physiol. Soc.*, March 1987, 40P.

SWANSON, G. J., VRBOVÁ, G. 1987. Effects of low calcium and inhibition of calcium-activated neutral protease (CANP) on mature nerve terminal structure in the rat sternocostalis muscle. *Dev. Brain Res.*, vol. 33, 199-203.

TAYLOR, A. M., LIEBERMAN, A. R. 1987. Ultrastructural organisation of the projection from the superior colliculus to the ventral lateral geniculate nucleus of the rat. *J. Comp. Neurol.*, vol. 256, 454-462.

TAYLOR, A. M., LIEBERMAN, A. R. 1987. Afferents of collicular origin in the dorsal lateral geniculate nucleus of the rat: an electron microscope-horseradish peroxidase study. *J. Anat.*, vol. 152, 243-245.

VRBOVÁ, G. 1986. Mechanisms regulating synapse reorganization of developing skeletal muscle fibres. In *Recent Achievements in Restorative Neurology 2. Progressive Neuromuscular Diseases*, 226-236. M. R. Dimitrijevic, B. Kakulos and G. Vrbová (editors). (Basel: Karger).

VRBOVÁ, G. 1986. The role of activity in the development of the mammalian motor unit. In *Electrical Stimulation and Neuromuscular Disorders*, 3-11. W. A. Nix and G. Vrbová (editors). (Berlin: Springer).

VRBOVÁ, G. 1987. Modification of muscle properties induced by activity: possible application for treatment. In *Multiple Sclerosis, Immunological, Diagnostic and Therapeutic Aspects*, 149-155. F. C. Rose and R. Jones (editors). (London: J. Libey).

VRBOVÁ, G. (with Scott, O. M., Hyde, S. A., Dubowitz, V.) 1986. Utilisation of induced functional changes in restorative procedures. In *Recent Achievements in Restorative Neurology 2. Progressive Neuromuscular Diseases*, 30-39. M. R. Dimitrijevic, B. Kakulas and G. Vrbová (editors). (Basel: Karger).

VRBOVÁ, G. (with Scott, O. M., Hyde, S. A., Dubowitz, V.) 1986. Effects of electrical stimulation on normal and diseased human muscle. In *Electrical Stimulation and Neuromuscular Disorders*, 125-131. W. A. Nix and G. Vrbová (editors). (Berlin: Springer).

VRBOVÁ, G. (with Scott, O. M., Hyde, S. A., Dubowitz, V.) 1986. Responses of muscles of patients with Duchenne muscular dystrophy to chronic electrical stimulation. *J. Neurol. Neurosurg. Psychiat.*, vol. 49, 1427-1434.

VRBOVÁ, G. (and others) 1986. The expression of myosin heavy chain isoforms in normal and hypertrophied chicken slow muscle. *J. Cell Biol.*, vol. 103, 977-983.

WALL, P. D. (and others) 1987. Collateral sprouting in skin and sensory recovery after nerve injury in man. *Pain*, vol. 28, 379-393.

WARNER, A. (with Gurdon, J. B.) Functional gap junctions are not required for muscle gene activation by induction in *Xenopus* embryos. *J. Cell Biol.*, vol. 104, 557-564.

WATSON, T. F., BOYDE, A. 1987. Tandem scanning reflected light microscopy: a new method for *in vitro* assessment of dental operative procedures and restorations. *Clin. Mater.*, vol. 2, 33-43.

WOOLF, C. J. 1987. Excitatory amino acids increase glycogen phosphorylase activity in the rat spinal cord. *Neurosci. Lett.*, vol. 73, 209-214.

WOOLF, C. J., FITZGERALD, M. 1986. The somatotopic organization of cutaneous afferent terminals and dorsal horn neuronal receptive fields in the superficial and deep laminae of the rat lumbar spinal cord. *J. Comp. Neurol.*, vol. 251, 517-531.

YEO, C. H., HARDIMAN, M. J., GLICKSTEIN, M. 1986. Classical conditioning of the nictitating membrane response of the rabbit. IV. Lesions of the inferior olive. *Exp. Brain Res.*, vol. 63, 81-92.

YEO, C. H., HARDIMAN, M., GLICKSTEIN, M. 1986. Middle cerebellar peduncle lesions impair conditioning of the eyeblink response. *Neurosci. Lett.*, suppl. 26, S559.

ZEKI, S. 1986. The anatomy and physiology of area V6 of macaque monkey visual cortex. *J. Physiol. (Lond.)*, vol. 381, 62P.

ZEKI, S. 1987. Comment le cerveau construit les coleurs. *Science et Vie*, no. 158: *Les Cinq Sens*, 94-101.

BIOCHEMISTRY

AL-NASSER, I., CROMPTON, M. 1986. The reversible Ca^{2+}-induced permeabilization of rat liver mitochondria. *Biochem. J.*, vol. 239, 19-29.

AL-NASSER, I., CROMPTON, M. 1986. The entrapment of the Ca^{2+} indicator arsenazo III in the matrix space of rat liver mitochondria by permeabilization and resealing. Na^{+} -dependent and -independent effluxes of Ca^{2+} in arsenazo III-loaded mitochondria. *Biochem. J.*, vol. 239, 31-40.

ANDREWS, L., WARD, J. M. 1987. Extracellular amylases from *Streptomyces albus G. Biochem. Soc. Trans.*, vol. 15, 522-523.

BAHT, H. S., SAGGERSON, E. D. 1987. Enzymes of glycerolipid synthesis in brown and white adipocytes. *Biochem. Soc. Trans.*, vol. 15, 428-429.

BARALLON, R. V., WARD, J. M. 1987. Production of β-lactamase by *Streptomyces albofaciens. Biochem. Soc. Trans.*, vol. 15, 521-522.

BARLOW, J. H., BUTTERWORTH, P. H. W. (with Davis, M. B., West, L. F., Lloyd, J. C., Edwards, Y. H.) 1987. Regional localization of carbonic anhydrase genes *CA1* and *CA3* on human chromosome 8. *Som. Cell Mol. Genet.*, vol. 13, 173-178.

BARLOW, J. H., LOWE, N., BUTTERWORTH, P. H. W. B. (with Edwards, Y. H.) 1987. Human carbonic anhydrase 1 cDNA. *Nucl. Acids Res.*, vol. 15, 2386.

BENDER, D. A. 1986. Combining a laboratory practical class with a computer simulation: Studies on the synthesis of urea in isolated hepatocytes. *Biochemical Education*, vol. 14, 17-22.

BENDER, D. A. (with Bender, A. E.) 1986. Niacin and tryptophan metabolism: The biochemical basis of niacin requirements and recommendations. *Nutrition Abstracts and Reviews (Series A)*, vol. 56, 695-719.

BENDER, D. A. (with McCreanor, G. M.) 1986. The metabolism of high intakes of tryptophan, nicotinamide and nicotinic acid in the rat. *Brit. J. Nutr.*, vol. 56, 577-586.

BENDER, D. A., COULSON, W. F., SYMES, E. K. (with Bowden, J-F.) 1986. Increased uterine uptake and nuclear retention of [^{3}H]oestradiol through the oestrous cycle and enhanced end-organ sensitivity to oestrogen stimulation in vitamin B_6 deficient rats. *J:. Steroid Biochem.*, vol. 25, 359-365.

M. I. BIRD, E. D. SAGGERSON (with Martin, R. J., Munday, L. A., Clark, J. B.) 1987. Enzyme activities in regions of the hypothalamus. *J. Neurochem.*, vol. 48, 738-740.

BLAIR, J. McD. 1987. The low-conductance delayed rectifier potassium channel involved in the action potential: a new hypothesis. *Biochem. Soc. Trans.*, vol. 15, 530-531.

CHANCE, E. M. 1986. Oxygen delivery in tissue: calculation of oxygen, myoglobin and cytochrome oxidase concentrations in resting, exercising and anoxic red skeletal muscle. *Proc. of the XIVth International Symposium on Oxygen Delivery in Tissue, Cambridge, July 1986.*

COWAN, D. A. (with Daniel, R. M., Morgan, H. W.) 1987. Some observations on the inhibition and activation of a thermophilic protease. *Int. J. Biochem.*, vol. 19, 483-486.

CRESPO-ARMAS, A., MOWBRAY, J. 1987. The rapid alteration by tri-iodo-L-thyronine *in vivo* of both the ADP/O ratio and the apparent H^+/O ratio in hypothyroid-rat liver mitochondria. *Biochem. J.*, vol. 241, 657-661.

CROMPTON, M., COSTI, A., HAYAT, L., AL-NASSER, I. 1987. A reversible Ca^{2+}-dependent pore activated by oxidative stress in heart mitochondria. *Biochem. Soc. Trans.*, vol. 15, 408-409.

CROMPTON, M., GOLDSTONE, T. P. 1986. The involvement of calcium in the stimulation of respiration in isolated rat hepatocytes by adrenergic agonists and glucagon. *FEBS Lett.*, vol. 204, 198-202.

CROMPTON, M., GOLDSTONE, T. P. 1986. The regulation of mitochondrial calcium by glucagon and adrenergic agonists in female rat liver. In *Hormonal Control of Gluconeogenesis*, vol. III, 61-70. N. Kraus-Friedman (editor). (Boca Raton, Florida: CRC Press).

CROMPTON, M., GOLDSTONE, T. P., AL-NASSER, I. 1986. The regulation of mitochondrial calcium. In *Intracellular Calcium Regulation*, 67-78. H. Bader et al. (editors). (Manchester University Press).

FOSTER, K. E., ROSEMEYER, M. A. 1987. On the assembly of tubulin in microtubule formation. *Biochem. Soc. Trans.*, vol. 15, 698-699.

FORREST, L. A., SHEPHARD, E. A. (with Bell, D. R., Phillips, I. R.) 1987. Tissue-specific expression of cytochrome P-450 genes. *Biochem. Soc. Trans.*, vol. 15, 626-627.

GOLDSTONE, T. P., ROOS, I., CROMPTON, M. 1987. Effects of adrenergic agonists and mitochondrial energy state on the Ca^{2+} transport systems of mitochondria. *Biochemistry*, vol. 26, 246-254.

GREENBAUM, A. L. (with Kunjara, S., Sochor, M., Ali, S. A., McLean, P.) 1987. Hepatic phosphoribosyl pyrophosphate concentration. Regulation by the oxidative pentose phosphate pathway and cellular energy status. *Biochem. J.*, vol. 244, 101-108.

GREENBAUM, A. L. (with Kunjara, S., Sochor, M., Adeoya, A., McLean, P.) 1986. Concentration of phosphoribosyl pyrophosphate in the kidney during development and in experimental diabetic hypertrophy. *Biochem. J.*, vol. 234, 579-585.

GREENBAUM, A. L. (with Kunjara, S., Sochor, M., McLean, P.) 1986. Concentration of phosphoribosyl pyrophosphate in renal hypertrophy. Contrasting effects of early diabetes and unilateral nephrectomy. *Biochem. J.*, vol. 239, 241-244.

GREENBAUM, A. L. (with Kunjara, S., Sochor, M., Salih, N., McLean, P.) 1986. Phosphoribosyl pyrophosphate and phosphoribosyl pyrophosphate synthetase in rat mammary gland. Changes in the lactation cycle and effects of diabetes, insulin and phenazine methosulphate. *Biochem. J.*, vol. 238, 553-559.

GREENBAUM, A. L. (with Sochor, M., Kunjara, S., McLean, P.) 1986. Renal hypertrophy in experimental diabetes. Effects of diabetes on the pathways of glucose metabolism: differential response in adult and immature rats. *Biochem. J.*, vol. 234, 573-577.

HAM, J., JOHNSTON, I. R. (with Rosamond, J.) 1987. A distinctive 30 base pair sequence in the 5^{1}-flanking region of the CDC7 gene of yeast. *Biochem. Soc. Trans.*, vol. 15, 460.

HAYAT, L. H., CROMPTON, M. 1987. The effects of Mg^{2+} and adenine nucleotides on the sensitivity of the heart mitochondrial Na^{+}-Ca^{2+} carrier to extramitochondrial Ca^{2+}. *Biochem. J.*, vol. 244, 533-538.

HEYWORTH, P. G., HUTCHINSON, W. L., MOWBRAY, J. 1987. A comparison of rapid adenine nucleotide incorporation into phosphoglyceroyl-ATP and into RNA-like species in perfused rat heart. *Biochim. Biophys. Acta*, vol. 927, 158-162.

HUTCHINSON, W. L., MOWBRAY, J. (with Morris, P. G.) 1986. The molecular structure of a rapidly formed oligomeric adenosine tetraphosphate derivative from rat heart. *Biochem. J.*, vol. 234, 623-627.

HUTCHINSON, W. L., MOWBRAY, J. (with Ratcliffe, P. J.) 1986. Evidence for the presence of oligophosphoglyceroyl-ATP in rat kidney. *Biochem. J.*, vol. 240, 597-599.

JAMAL, Z., SAGGERSON, E. D. 1987. Enzymes involved in adenosine metabolism in brown and white adipocytes. *Biochem. Soc. Trans.*, vol. 15, 427-428.

KOVACS, B. J., BUTTERWORTH, P. H. W. B. 1986. DNA sequences which influence the selection and efficient utilisation of transcriptional start sites of a eukaryotic gene by RNA polymerase II *in vitro* and *in vivo*. *Bioscience Reports*, vol. 6, 937-944.

LAWSON, R., MOWBRAY, J. 1986. Purine nucleotide metabolism: The discovery of a major new oligomeric adenosine tetraphosphate derivative in rat heart. *Int. J. Biochem.*, vol. 18, 407-413.

PIPER, P. W. (with Kempers-Veenstra, A. E., Oliemans, J., Offenberg, H., Dekker, A. F., Planta, R. J., Klootwijk, J.) 1986. 3^{1}-end formation of transcripts from the yeast rRNA operon. *EMBO J.*, vol. 5, 2703-2710.

PIPER, P. W., CURRAN, B., DAVIES, M. W., LOCKHEART, A., REID, G. 1986. Transcription of the phosphoglycerate kinase gene of *Saccharomyces cerevisiae* increases when fermentative cultures are stressed by heat-shock. *Eur. J. Biochem.*, vol. 161, 525-531.

PIPER, P. W., DAVIES, M. W., CURRAN, B., LOCKHEART, A. (with Spalding, A., Tuite, M. F.) 1987. The influence of cell ploidy on the thermotolerance of *Saccharomyces cerevisiae*. *Curr. Genet.*, vol. 11, 595-598.

PIPER, P. W., LOCKHEART, A., BELLATIN, J. 1987. The effects of protein synthesis inhibition, and of mutations *rna1.1* and *rna82.1*, on the synthesis of small RNAs in yeast. *FEBS Lett.*, vol. 214, 143-148.

RABIN, B. R., HOLLAWAY, M. R., TAYLORSON, C. J. 1985. Enzymic method of detecting analytes and novel substrates therefor. U.K. Patent Application No. GB 2156518A.

ROSEMEYER, M. A. 1987. The biochemistry of glucose-6-phosphate dehydrogenase, 6-phosphogluconate dehydrogenase and glutathione reductase. *Cell Biochem. Funct.*, vol. 5, 79-95.

ROSEMEYER, M. A. (with Haritos, A. A. et al.) 1987. On the molecular size of thymosins. *FEBS Lett.*, vol. 218, 107-112.

ROSEMEYER, M. A. (with Haritos, A. A.) 1986. Purification and physical properties of hexokinase from human erythrocytes. *Biochim. Biophys. Acta*, vol. 873, 335-339.

SAGGERSON, E. D. 1987. Malonyl-CoA and the regulation of fatty acid oxidation versus synthesis. *Archives Internationales de Physiologie et de Biochimie*, vol. 95, B179.

SAGGERSON, E. D. 1986. Sensitivity of adipocyte lipolysis to stimulatory and inhibitory agonists in hypothyroidism and starvation. *Biochem. J.*, vol. 238, 387-394.

SAGGERSON, E. D. 1986. Carnitine palmitoyltransferase in extrahepatic tissue. *Biochem. Soc. Trans.*, vol. 14, 679-681.

SAGGERSON, E. D. CARPENTER, C. A. 1987. Effects of streptozotocin-diabetes and insulin administration *in vivo* or *in vitro* on the activities of five enzymes in the adipose-tissue triacylglycerol-synthesis pathway. *Biochem. J.*, vol. 243, 289-292.

SAMARAJEEWA, P., COULSON, W. F. (with Seth, R.) 1986. Characteristics of antibodies raised against haptens (1) oestradiol-3-sulphate-17B-hemisuccinate and (2) oestrone-3-glucuronide. *Abstracts of the 12th World Congress on Fertility and Sterility, Singapore, 26-31 October.* Abstract No. 246.

SHEPHARD, E. A. (with Davis, M. B., West, L. F., Phillips, I. R.) 1986. Regional localization of a human cytochrome P-450 (cypl) to chromosome 19q 13.-1-13.3. *Ann. Hum. Genet.*, vol. 50, 237-240.

SHEPHARD, E. A. (with Davis, M. B., West, L. F., Phillips, I. R.) 1986. Chromosome localization of P-450H1 by in situ hybridization. *Cytogenet. Cell Genet.*, vol. 40, 613.

SHEPHARD, E. A. (with Phillips, I. R., Kelsey, G., Cowell, J., Povey, S.) 1986. A cytochrome P-450 gene family on human chromosome 19. *Cytogenet. Cell Genet.*, vol. 40, 741.

SHEPHARD, E. A., ASHWORTH, A., FERRIE, J. S., FORREST, L. A., AUSTIN, C. A. (with Phillips, I. R., Bell, D. R., Thompson, S.) 1987. Structure and expression of genes coding for components of the cytochrome P-450 mediated mono-oxygenase. *Biochem. Soc. Trans.*, vol. 15, 573-575.

SHEPHARD, E. A., ASHWORTH, A. (with Thompson, S., Hutter, A., Phillips, I. R.) 1987. Structure and expression of human cytochrome P-450 genes. *Biochem. Soc. Trans.*, vol. 15, 627-628.

SHEPHARD, E. A., ORTIZ de MONTELLANO, P. R. (with CaJacob, C. A.) 1987. Protein modification in the inactivation of lauric acid hydroxylase by terminal acetylenic fatty acids. *Fed. Proc.*, vol. 46, 1955.

SHIELS, A., SHEPHARD, E. A. (with Phillips, I. R.) 1987. Expression of cytochrome P-450 genes in rat hepatoma cells. *Biochem. Soc. Trans.*, vol. 15, 625-626.

SPENCER, V. M., BUTTERWORTH, P. H. W. B. 1987. Splicing of the SV40 small t intron is restricted by its size. *Biochem. Soc. Trans.*, vol. 15, 461-462.

TAYLOR, S. J., SAGGERSON, E. D. 1986. Adipose-tissue Mg^{2+}-dependent phosphatidate phosphohydrolase. *Biochem. J.*, vol. 239, 275-284.

WANLESS, C., WELLS, P., JOHNSTON, I. R. 1987. Studies on the isolation of the CDC7 gene product of yeast. *Biochem. Soc. Trans.*, vol. 15, 459.

WHITE, H. A. 1986. Chemical synthesis of oligodeoxyribonucleotides. In *Techniques in Molecular Biology*, vol. II, 228-250. J. M. Walker and W. Gaastra (editors). (London, Croom Helm).

WILLIAMS, D. J. (with O'Dell, D. S.) 1987. Purification of the major ricin 120-binding proteins of rat spleen by preparative gel electrophoresis. *Biochem. Soc. Trans.*, vol. 15, 537.

WOODWARD, J. A., SAGGERSON, E. D. 1986. Effect of adenosine deaminase, N^6-phenylisopropyladenosine and hypothyroidism on the responsiveness of rat brown adipocytes to noradrenaline. *Biochem. J.*, vol. 238, 394-403.

PHARMACOLOGY

ASSEM, E. S. K. (with Ezeamuzie, I. C.) 1986. Histamine releasing factor is not an interferon. *Agents and Actions,* vol. 18, 159-162.

ASSEM, E. S. K., ABDULLAH, N. A., GHANEM, N. S. 1986. Renal histamine: Release by immune stimuli. *Agents and Actions,* vol. 19, 141-149.

ASSEM, E. S. K., GHANEM, N. S. (with Da Silva Machado, F. R.) 1986. Cardiac mast cells: partial purification of guinea-pig atrial mast cells and release from them of histamine and leukotriene C_4 by immune and non-immune stimuli. *Agents and Actions,* vol. 18, 167-171.

ASSEM, E. S. K. (with Pusey, J. M., Charlton, S. M., Skinner, J. B.) 1987. Anaphylactoid reaction to alcuronium. *Anaesthesia,* vol. 42, 164-167.

ASSEM, E. S. K., ABDULLAH, N. A. 1987. Experimental renal anaphylaxis: release of histamine and study of its effect on renal perfusion. *Agents and Actions,* vol. 20, 295-298.

ASSEM, E. S. K., GHANEM, N. S., ABDULLAH, N. A. 1987. Comparison of the response of mast cells in guinea-pig cardiac atria and ventricles. *Ibid.*, 1-9.

ASSEM, E. S. K. ABDULLAH, N. A. 1987. Release of thromboxane B_2 and leukotriene C_4 and reduction in renal perfusion in experimental anaphylactic reaction of isolated guinea-pig kidney. *Int. Arch. Allergy Appl. Immunol.*, vol. 82, 212-214.

CANTWELL, M. E., FOREMAN, J. C. 1987. Phorbol esters induce a slow, non-cytotoxic release of histamine from rat peritoneal mast cells. *Agents and Actions,* vol. 20, 165-168.

CAPIOD, T., FIELD, A., OGDEN, D. C., SANDFORD, C. 1986. Increase of potassium and chloride conductance with internal perfusion of inositol trisphosphate or calcium ions in guinea-pig isolated hepatocytes. *J. Physiol.*, vol. 382, 188P.

CAPIOD, T., FIELD, A. C., OGDEN, D. C., SANDFORD, C. A. 1987. Internal perfusion of guinea-pig hepatocytes with buffered Ca^{2+} or inositol 1,4,5-trisphosphate mimics noradrenaline activation of K^+ and Cl^- conductances. *FEBS Letts.*, vol. 217, 247-252.

CASTLE, N. A., HAYLETT, D. G. 1987. Effect of channel blockers on potassium efflux from metabolically exhausted frog skeletal muscle. *J. Physiol.*, vol. 383, 31-43.

CASTLE, N. A., STRONG, P. N. 1986. An apamin-like activity in scorpion venom. In *Molecular Basis of neural function,* 308. S. Tucek, S. Stipek, F. Stastny and J. Krivanek (editors). (Prague: Prometheus).

CASTLE, N. A., STRONG, P. N. 1986. Identification of two toxins from scorpion *(Leiurus quinquestriatus)* venom which block distinct classes of calcium-activated potassium channels. *FEBS Letts.*, vol. 209, 117-121.

CASTLE, N. A., STRONG, P. N. (with Beech, D. J., Bolton, T. B.) 1987. Characterization of a toxin from scorpion *(Leiurus quinquestriatus)* venom that blocks *in vitro* both (large) BK K^+-channels in rabbit vascular smooth muscle and intermediate (IK) conductance Ca^{2+}-activated K^+ channels in human red cells. *J. Physiol.*, vol. 387, 32P.

COLQUHOUN, D. 1986. Biophysicists and biochemists talk about nAChR. *Trends in Pharmacol. Sci.*, vol. 7, 292-294.

COLQUHOUN, D. 1986. Caution: agonists are complex. *Trends in Pharmacol. Sci.*, vol. 7, 390.

COLQUHOUN, D. 1987. Affinity, efficacy, and receptor classification: Is the classical theory still useful? In *Perspectives on Receptor Classification*, vol. 6, 103-114. J. W. Black, D. H. Jenkinson and P. Gerskowitch (editors). (New York: Alan R. Liss Inc).

COLQUHOUN, D. (with Hawkes, A. G.) 1987. A note on correlations in single channel records. *Proc. Roy. Soc. B.*, vol. 230, 15-52.

COLQUHOUN, D., OGDEN, D. C. 1986. States of the nicotinic acetylcholine receptor: enumeration, characteristics and structure. In *Nicotinic Acetylcholine Receptor. Structure and Function.* NATO ASI Series, vol. H3, 197-218. A. Maelicke (editor). (Berlin: Springer-Verlag).

CULL-CANDY, S. G. 1986. Amino acid activated receptor-channels at peripheral and central synapses. In *Excitatory amino acids and epilepsy.* R. Schwarcz and Y. Ben-Ari (editors). (London and New York: Plenum Press).

CULL-CANDY, S. G., DILGER, P., MARSHALL, C. G., OGDEN, D. C. 1986. Voltage-activated currents in freshly dispersed granule cells from neonatal rat cerebellum. *J. Physiol.*, vol. 381, 114P.

CULL-CANDY, S. G., MAGNUS, C. J., MATHIE, A. 1986. Freshly dissociated rat sympathetic neurones: a preparation suitable for patch-calmp recording. *J. Physiol.*, vol. 377, 2P.

CULL-CANDY, S. G., USOWICZ, M. M. 1987. Multiple-conductance channels activated by excitatory amino acids in cerebellar neurons. *Nature*, vol. 325, 525-528.

CULL-CANDY, S. G., USOWICZ, M. M. 1987. Patch-clamp recording from single glutamate-receptor channels. *Trends in Pharmacol. Sci.*, vol. 8, 218-224.

CULL-CANDY, S. G., USOWICZ, M. M. 1987. Glutamate and aspartate activated channels and inhibitory synaptic currents in large cerebellar neurons grown in culture. *Brain Res.*, vol. 402, 182-187.

DICKENSON, A. H. (with Goldsmith, G. E.) 1986. Evidence for a role of 5-hydroxytrptamine in the responses of rat raphé magnus neurones to peripheral noxious stimuli. *Neuropharmacology*, vol. 25, 863-868.

DICKENSON, A. H. (with Le Bars, D.) 1987. Supraspinal morphine and descending inhibitions acting on the dorsal horn of the rat. *J. Physiol.*, vol. 384, 81-108.

DICKENSON, A. H., KNOX, R. J. 1987. Antagonism of mu opioid receptor mediated inhibitions of nociceptive neurones by U50488H and Dymorphin A(1-13) in the rat dorsal horn. *Neurosci. Letts.*, vol. 75, 229-234.

DICKENSON, A. H., KNOX, R., SULLIVAN, A. F. (with Dashwood, M. R., Roques, B. P.) 1986. Mu and delta opiate receptors: location and influences on nociceptive transmission in the rat spinal cord. *J. Physiol.*, vol. 376, 57P.

DICKENSON, A. H. SULLIVAN, A. F. (with Fournie-Zaluski, M. C., Roques, B. P.) 1986. Evidence that endogenous enkephalins produce delta opiate receptor mediated neuronal inhibitions in rat dorsal horn. *Neurosci. Letts.*, vol. 72, 179-182.

DICKENSON, A. H., SULLIVAN, A. F. (with Fourni-Zaluski, M. C., Roques, B. P.) 1987. Prevention of degradation of endogenous enkaphalins produces inhibition of nociceptive neurones in the rat dorsal horn. *Brain Res.*, vol. 408, 185-191.

DICKENSON, A. H., SULLIVAN, A. F., KNOX, R. (with Roques, B. P., Zajac, J.) 1987. Opioid receptor subtypes in the rat spinal cord: elelctrophysiological evidence for a role of mu and delta opioid receptor agonists in the control of nociception. *Brain Res.*, vol. 413, 36-44.

EZEAMUZIE, I. C., ASSEM, E. S. K. 1987. Antigen-induced formation of a lymphokine with possible role as a mediator of the late component of dual hypersensitivity reaction: A case report. *Int. Arch. Allergy Appl. Immunol.*, vol. 82, 221-224.

FOREMAN, J. C. 1985. Neurotransmitters and allergic reactions. In *Proc. of the XII International Congress of Allergology and Clinical Immunology. Washington, D.C., 20-25 October 1985.* C. E. Reed (editor). 284-290.

FOREMAN, J. C. 1987. Peptides and neurogenic inflammation. *Brit. Med. Bull.*, vol. 43, 386-400.

FOREMAN, J. C. 1987. Substance P and calcitonin gene-related peptide: effects on mast cells and in human skin. *Int. Archs. Allergy. Appl. Immunol.*, vol. 82, 366-371.

FOREMAN, J. C. 1987. Neuropeptides in the pathogenesis of allergic disease. *Allergy,* vol. 42, 1-11.

FOREMAN, J. C. (with Matthews, P. B.) 1986. Jervis on the Office and Duties of Coroners. (10th Edition). (London: Sweet and Maxwell). 539 pp.

FOREMAN, J. C. (with Sagi-Eisenberg, R., Raval, P. J., Cockcroft, S.) 1987. Protein and diacylglycerol phosphorylation in the stimulus-secretion coupling of rat mast cells. *Immunology,* vol. 61, 203-206.

GHANEM, N. S., ASSEM, E. S. K. 1987. Comparison of the release of various mediators from atrial and ventricular tissues in guinea-pig heart. *Agents and Actions,* vol. 20, 284-287.

HAYES, N. A., FOREMAN, J. C. 1987. The activity of compounds extracted from feverfew on histamine release from rat mast cells. *J. Pharm. Pharmacol.*, vol. 39, 466-470.

HAYLETT, D. G., JENKINSON, D. H. 1986. Ion movements resulting from receptor-mediated changes in liver cell membrane permeability. In *Hormonal Control of Gluconeogenesis,* vol. II, 205-212. N. Kraus-Friedmann (editor). (Florida: CRC Press).

JENKINSON, D. H. (with J. W. Black, V. P. Gerskowitch) (editors). 1987. *Perspectives on receptor classification.* (New York: Liss.). 291 pp.

JENKINSON, D. H. 1987. Heinz Schild's contribution to receptor classification. *Ibid.*, 1-10.

JENKINSON, D. H. 1987. An introduction to receptors and their actions. In *Drugs in Anaesthesia: Mechanisms of Action,* 3-31. S. Feldman, C. F. Scurr, W. D. M. Paton (editors). (London: Arnold).

KENT, A. P., WEBSTER, R. A. 1986. The role of GABA and excitatory amino acids in the development of the leptazol-induced epileptogenic EEG. *Neuropharmacology,* vol. 25, 1023-1030.

MARSHALL, I. (and others) 1986. Expression and function of the human calcitonin/ α-CGRP gene in health and disease. *Biochem. Soc. Symp.*, vol. 52, 91-105.

MARSHALL, I. (with others) 1986. Structure, expression and function of the human calcitonin/α-CGRP gene. In *Neuroendocrine Perspectives,* vol. 5, 255-269. E. E. Muller and R. M. McLeod (editors). (Elsevier).

MARSHALL, I. (with Holman, J. J., Craig, R. K.) 1986. Human α- and ß-CGRP and rat α-CGRP are coronary vasodilators in the rat. *Peptides,* vol. 7, 231-235.

MARSHALL, I. (with others) 1986. Structure, function and expression of the human calcitonin/α-CGRP gene. In *Neuroendocrine Molecular Biology,* 1-16. G. Fink, A. J. Harmar, and K. W. McKerns (editors). (Plenum Press).

MARSHALL, I. (with Craig, R. K.) 1986. The calcitonin gene-related peptides (CGRP) are vasodilators. *Blood Vessels,* vol. 23, 89.

MARSHALL, I. (with Al-Kazwini, S. J., Craig, R. K., Holman, J. J.) 1987. Maintained hypotensive effect of human α-CGRP after infusion of up to 4 h. in conscious rats. *Br. J. Pharmac.,* vol. 90, 37P.

MARSHALL, I. (with Al-Kazwini, S. J., Craig, R. K., Holman, J. J.) 1987. Comparison of the relaxation of rat arteries and veins by human α-CGRP, sodium nitroprusside and acetylcholine. *Br. J. Pharmac.,* vol. 90, 220P.

MARSHALL, I. (with Al-Kazwini, S. J., Craig, R. K., Holman, J. J.) 1987. Three-day intravenous infusion of human α-calcitonin gene-related peptide (human α-CGRP) causes sustained hypotension in rats. *Br. J. Pharmac.,* vol. 91, 354P.

MUID, R. E., PENFIELD, A., DALE, M. M. 1987. The diacylglycerol kinase inhibitor, R59022, enhances the superoxide generation from human neutrophils induced by stimulation of fMet-leu-phe, IgG and C3b receptors. *Biochem. Biophys. Res. Comm.,* vol. 143, 630-637.

OBIANIME, A. W., DALE, M. M. 1987. The effect of phorbol esters on the guinea-pig parenchymal strip. *Br. J. Pharmac.,* vol.90, 170P.

RANG, H. P., DALE, M. M. 1987. *Pharmacology.* (Edinburgh: Churchill Livingstone). 736 pp.

PIOTROWSKI, W., FOREMAN, J. C. (with Mead, M.) 1987. Action of the SP_{2-11} and SP_{3-11} fragments of substance P on rat peritoneal mast cells. *Agents and Actions,* vol. 20, 178-180.

STANFORD, S. C. (with others) 1986. Effects of chronic treatment with benzodiazepine receptor ligands on cortical adrenoceptors. *Euro. J. Pharmacol.,* vol. 129, 181-184.

STANFORD, S. C. (with others) 1986. A single dose of FG7142 causes long-term increases in mouse cortical ß-adrenoceptors. *Euro. J. Pharmacol.,* vol. 134, 313-319.

STANFORD, S. C. (with others) 1986. An amperometric enzyme electrode for monitoring brain glucose in the freely moving rat. *Neurosci. Lett.,* vol. 72, 283-288.

STANFORD, S. C. (with others) 1986. The effect of a single dose of FG7142 on monoamine concentrations in mouse cerebral cortex. *Br. J. Pharmacol.,* vol. 87, 45P.

STANFORD, S. C. (with Davies, C., Steinberg, H., Sykes, E.) 1986. Unusual behavioural and binding effects after co-administration of clenbuterol and chlordiazepoxide in mice. *Br. J. Pharmacol.,* vol. 89, 531P.

STANFORD, S. C. (with Waugh, J.) 1986. Acute mild stress causes α_2-adrenoceptor upregulation in rat cerebral cortex. *Br. J. Pharmacol.,* vol. 89, 645P.

STANFORD, S. C. (with Little, H. J., Taylor, S. C.) 1986. ß-adrenoceptor upregulation after FG7142 is abolished by chronic pretreatment with the antidepressant desmethylimipramine. *Br. J. Pharmacol.,* vol. 89, 800P.

STANFORD, S. C. (with Davies, C., Steinberg, H., Sykes, E.) 1986. Anti-depressants and chlordiazepoxide cause backward walking. *Psychopharmacol.,* vol. 89, S117.

STANFORD, S. C. (with Davies, C., Steinberg, H., Sykes, E.) 1987. Clenbuterol/chlordiazepoxide induced backward walking in mice is modified by mild stress. *Br. J. Pharmacol.,* vol. 90, 119P.

STRONG, P. N. (with Evans, W. H.) 1987. Receptor mediated endocytosis of apamin by liver cells. *Eur. J. Biochem.,* vol. 163, 267-273.

WEBSTER, R. A. (with Aylmer, C. G. G., Steinberg, H.) 1987. Hyperactivity induced by dexamphetamine/chlordiazepoxide mixtures in rats and its attenuation by lithium pretreatment: a role for dopamine? *Psychopharmacology,* vol. 91, 198-206.

PHYSIOLOGY

ALLEN, D. G. (with Orchard, C. H.) 1986. The role of intracellular Ca, pH and ATP in myocardial failure hypoxia. In *Cardiac Function Under Ischaemia and Hypoxia,* 303-316. K. Yamada, A. M. Katz and J. Toyama (editors). (University of Nagoya Press).

ALLEN, D. G. (with Pirolo, J. S.) 1986. An assessment of techniques for preventing glycolysis in cardiac muscle. *Cardiovasc. Res.*, vol. 20, 837-844.

ALLEN, D. G., EISNER, D. A., SMITH, G. L. (with Morris, P. G., Pirolo, J. S.) 1986. Metabolic consequences of increasing intracellular calcium and force production in perfused ferret hearts. *J. Physiol.*, vol. 376, 121-141.

ALLEN, D. G., EISNER, D. A., SMITH, G. L., VALDEOLMILLOS, M. 1986. The effects of timing of a calcium oscillation on the subsequent systolic Ca transients in ferret ventricular muscle. *Ibid.*, 40P.

ALLEN, D. G., ELLIOTT, A. C., SMITH, G. L. 1986. Intracellular acidosis on increasing the frequency of stimulation in isolated ferret hearts is partly attributable to increased lactic acid production. *J. Physiol.*, vol. 377, 113P.

ALLEN, D. G., EISNER, D. A., SMITH, G. L., VALDEOLMILLOS, M. 1986. The effects of rapid reduction of extracellular calcium on isolated ferret papillary muscle. *J. Physiol.*, vol. 382, 110P.

ALLEN, D. G. (with Orchard, C. H.) 1987. Myocardial contracile failure during ischawmia and hypoxia. *Ciculation Res.*, vol. 60, 153-168.

ALLEN, D. G., HARRIS, M. B., SMITH, G. L. 1987. Failure of action potentials during cyanide exposure in isolated glycogen-depleted ferret ventricular muscle. *J. Physiol.*, vol. 387, 65P.

ALLEN, D. G., SMITH, G. L. 1987. The effects of hypertonicity on tension and intracellular calcium concentration in ferret ventricular muscle. *J. Physiol.*, vol. 383, 425-439.

ATTWELL, D. I. 1986. Physical chemistry of acid-base balance. In *Acid-Base Balance,* Chapter 1. R. Hainsworth (editor). (Manchester University Press).

ATTWELL, D. I. 1986. The Sharpey Schafer lecture: Ion channels and signal processing in the outer retina. *Quart. J. Exp. Physiol.*, vol. 71, 497-536.

ATTWELL, D. I., BREW, H., MOBBS, P. (with Gray, P.) 1986. Endfeet of retinal glia have higher densities of ion channels that mediate K^+ buffering. *Nature,* vol. 324, 466-468.

ATTWELL, D. I., TESSIER-LAVIGNE, M. 1987. Transmission of noise between rods and cones in the isolated retina of the salamander. *J. Physiol.*, vol. 384, 22P.

ATTWELL, D. I., BREW, H. 1987. A glutamate-activated carrier in glial cells isolated from the axolotl retina. *J. Physiol.*, vol. 387, 35P.

ATTWELL, D. I., MOBBS, P., TESSIER-LAVIGNE, M. (with Wilson, M.) 1987. Neurotransmitter-induced currents in retinal bipolar cells of the axolotl. *J. Physiol.*, vol. 387, 125-161.

AYAD, V. J., FRY, J. P., RICKETS, C. (with Martin, I. L.) 1986. Immunochemical evidence for an endogenous benzodiazepine receptor ligand in the brain of the mouse. *J. Physiol.*, vol. 377, 32P.

BAKER, J. R., BREMNER, F. D., STEPHENS, J. A. (with Datta, A. K.) 1986. Synchromyography: a new approach to the study of central synaptic organisation in health and disease. *Muscle and Nerve,* vol. 9, 26.

BAKER, J. R., BREMNER, F. D., STEPHENS, J. A. (with Datta, A. K.) 1986. Is the distribution of motor unit synchrony between different finger muscles task dependent? *Proc. Int. Union. Physiol. Sci.,* vol. 16, 1121.

BANKS, B. E. C. 1986. The composition of *Hymenoptera* venoms with particular reference to the venom of the honey bee. In *Proc. of the 7th European Symposium on Animal, Plant and Microbioltoxins,* 41-59. F. Kornalik and D. Mebs (editors). (Prague).

BANKS, B. E. C. (with others) 1987. Ethical standards and guidelines for animal experiments in toxinological research. *Toxicon,* vol. 24, 327-330.

BANKS, B. E. C. (with Russell, F. E.) 1987. Letter to the Editors. *Toxicon,* vol. 25, 237.

BARANOWSKI, R., LYNN, B. (with Pini, A.) 1986. Long-term neurotoxic action of capsaicin on afferent nerve fibres. An elelctrophysiological and morphological study. (Abstracts 30th Congress, Vancouver). *Proc. I.U.P.S. Congress,* vol. 16, 207.

BARANOWSKI, R., LYNN, B. (with Pini, A.) 1986. The effects of locally applied capsaicin on conduction in cutaneous nerves in four mammalian species. *Br. J. Pharmacol.,* vol. 89, 267-276.

BILLING, A. E., FRY, J. P., READ, G. L. 1986. Changes in sensitivity to diazepam during the oestrous cycle in the mouse. *J. Physiol.,* vol. 377, 70P.

BINDMAN, L. J., MEYER, T. (with Pockett, S.) 1987. Long-term potentiation in rat neocortical hormones in slices, produced by repetitive pairing of an afferent volley with intracellular depolarising current. *J. Physiol.,* vol. 386, 90P.

BISCOE, T. J., DUCHEN, M. R., PATTERSON, D. L. 1986. Voltage clamp study of acutely dissociated mouse spinal neurones. *J. Physiol.,* vol. 377, 10P.

BISCOE, T. J., DUCHEN, M. R. 1986. Synaptic physiology of spinal motoneurones of normal and *spastic* mice: an *in vitro* study. *J. Physiol.,* vol. 379, 275-292.

BISCOE, T. J., DUCHEN, M. R., PATTERSON, D. L. 1986. Dual actions of glycine on dissociated mouse spinal neurones. *J. Physiol.,* vol. 382, 133P.

BISCOE, T. J., FRY, J. P., DUCHEN, M. R. 1986. Inhibitory amino-acid receptors in the nervous system of normal and mutant mice. *Proc. I.U.P.S.,* vol. 16, 5171.04.

BREW, H., ATTWELL, D. I. 1987. Electrogenic glutamate uptake is a major current carrier in the membrane of axolotl retinal glial cells. *Nature,* vol. 327, 707-709.

CADDY, K. W. T. (with Fieldman, G., Herrups, K.) 1986. Quantitative analysis of Purkinje cell dendrites in normal and Lurcher chimaeric mice. *Soc. Neuroscience Abs.,* vol. 12, 1583.

CONNELL, L. A., DAVEY, N. J., ELLAWAY, P. H. 1986. The degree of short term synchrony between α- and γ-motoneurones coactivated during the flexion reflex in the cat. *J. Physiol.,* vol. 376, 47-61.

CROSS, B. A. 1987. The relationship between oscillations of arterial PCO_2 and the activity recorded from few or multi-fibre chemoreceptor preparations of the carotid sinus nerve. In *Concepts and Formalizations in the Control of Breathing,* 34-46. G. Benchenk, P. Baconnier and J. Demongeot (editors). (Manchester University Press).

CROSS, B. A., FORSLING, M. L. 1986. The time course of the vasopressin response to hypercapnic acidosis in mechanically ventilated dogs. *J. Physiol.,* vol. 382, 59P.

CROSS B. A. (with Semples, S. J. G., Stidwell, R. P., Leaver, K. O.) 1986. Changes in PaO_2 modulate the sensitivity of carotid chemoreceptors to alterations in the rate of change of $PaCO_2$ oscillations. In *Proc. XXXth Congress Int. Union of Physiological Sciences.* Vancouver, 13-18 July 1986. XVI 306.

CROSS, B., FORSLING, M. L. (with Coren, M. E., Jenkins, M. P.) 1987. The time course of the vasopressin response to hypercapnic acidosis in mechanically ventilated dogs. *J. Physiol.*, vol. 382, 60P.

CROSS, B. A., LEAVER, K. D., SEMPLE, S. J. G., STIDWILL, R. P. 1986. The effect of small changes in arterial carbon dioxide tension on carotid chemoreceptor activity in the cat. *J. Physiol.*, vol. 380, 415-427.

CROSS, B. A., LEAVER, K. D., SEMPLE, S. J. G., STIDWILL, R. P. 1987. Derivation of CO_2 output from oscillations in arterial pH. *J. Appl. Physiol.*, vol. 62, 880-891.

CROSSLEY, R., READ, G. L., WHITAKER, M. J. 1986. A lower-cost video-enhanced-microscopy system for viewing final detail in living cells. *J. Physiol.*, vol. 377, 13P.

CROSSLEY, R., SWANN, K., WHITAKER, M. J. 1986. The role of calcium in the control of microtubule-based pronuclear movement in sea urchin eggs. *J. Physiol.*, vol. 377, 49P.

DAVEY, N. J., ELLAWAY, P. H. (with Stein, R. B.) 1986. Statistical limits for detecting change in the cumulative sum derivative of the peristimulus time histogram. *J. Neurosci, Meth.*, vol. 17, 153-166.

DAVEY, N. J., ELLAWAY, P. H., FRIEDLAND, C. L. 1986. Synchrony of motor unit discharge in human's with Parkinson's disease. *J. Physiol.*, vol. 377, 30P.

DAVEY, N. J., ELLAWAY, P. H. (with Halliday, D. M., Murray-Smith, D. J., Rosenberg, J. R.) 1986. Comparative analysis of measures of association between spike trains. *J. Physiol.*, vol. 377, 14P.

DAVEY, N. J., ELLAWAY, P. H., FRIEDLAND, C. L. 1986. Correlated discharges of motor units in Parkinson's Disease. *Neurosci. Letts. Suppl.*, vol. 26, S194.

DUCHEN, M. R., BISCOE, T. J., PATTERSON, D. L. 1986. Actions of glycine on dissociated mouse spinal neurones. *Soc. Neurosci. Abstr.*, vol. 12, 294.3.

DUCHEN, M. R. 1986. Excitation of mouse motoneurones by GABA-medicated primary afferent depolarisation. *Brain Res.*, vol. 379, 182-187.

DZIEGIELEWSKA, K. M., REYNOLDS, M. L., SAUNDERS, N. R. (with Christie, D., Le Gros, G., Møllgård, K., Renwick, A. G. C.) 1986. α_2HS glycoprotein: the human equivalent of the fetal protein fetuin. *J. Physiol.*, vol. 381, 82P.

DZIEGIELEWSKA, K. M., REYNOLDS, M. L., SAUNDERS, N. R. (with Hinds, L. A., Møllgård, K., Tyndale-Biscoe, C. H.) 1986. Blood-brain and blood-csf barriers to protein in pouch young of the tammar wallaby *(M. eugenii). J. Physiol.*, vol. 382, 99P.

DZIEGIELEWSKA, K. M. (with Soreq, J., Zevin-Zonklin, D., Zakutt, H.) 1986. The use of mRNA translation *in vitro* and *in ovo* followed by crossed immuno-electrophoretic autoradiography to study the biosynthesis of human cholinesterases. *Cell. Mol. Neurobiol.*, vol. 6, no. 3.

DZIEGIELEWSKA, K. M., SAUNDERS, N. R. (with Christie, D. L., Hill, R. M.) 1987. Fetuin: the bovine homologue of human α_2HS glycoprotein. *FEBS Lett.*, vol. 214, no. 1, 45-49.

DZIEGIELEWSKA, K. M., REYNOLDS, M. L., SAUNDERS, N. R. (with Møllgård, K.) 1987. A fetuin-related glycoprotein (α_2HS) in human embryonic and fetal development. *Cell Tissue Res.*, vol., 248, 33-41.

EISNER, D. A. (with others) 1985. The regulation of tension in heart muscle by intracellular sodium. In *Cadiac Muscle: regulation of Excitation and Contraction*, 217-235. R. D. Nathan-Willey (editor).

EISNER, D. A. 1986. The Na-K pump in cardiac muscle. In *Handbook of Cardiology*, 489-507. H. A. Fozzard (editor). (New York: Raven Press).

EISNER, D. A. 1986. The role of intracellular Ca ions in the therapeutic and toxic effects of cardiac glycosides and catecholamines. *J. Cardivasc. Pharmacol.*, vol. 8, (Suppl. 3), S2-S9.

EISNER, D. A., VALDEOLMILLOS, M. 1986. Na-Ca exchange in cardiac muscle. In *Membrane Control of Cellular Activity,* 443-455. Luttgau.

EISNER, D.A., VALDEOLMILLOS, M. (with Cannell, M. B., Lederer, W. J.) 1986. Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutioins. *J. Physiol.*, vol. 381, 311-331.

EISNER, D. A., VALDEOLMILLOS, M., WRAY, S. 1986. The voltage dependence of the ^{22}Na-K pump in isolated *Xenopus* oocytes: simultaneous measurement of membrane current and ^{22}Na efflux. *J. Physiol.*, vol. 377, 84P.

EISNER, D. A. (with Vaughan-Jones, R. D., Lederer, W. J.) 1987. Effects of changes of intracellular pH on contraction in sheep cardiac Purkinje fibres. *J. Gen. Physiol.*, vol. 89, 1015-1032.

EISNER, D. A., ELLIOTT, A. C., SMITH, G. L. 1987. The decrease of pressure produced by cyanide in isolated ferret hearts is not due to intracellular acidosis. *J. Physiol.*, vol. 382, 111P.

EISNER, D. A., VALDEOLMILLOS, M., WRAY, S. 1987. The effects of membrane potential on active and passive Na transport in *Xenopus* oocytes. *J. Physiol.*, vol. 385, 643-660.

ELLIOTT, A. C., SMITH, G. L., EISNER, D. A. 1987. Intracellular acidosis caused by cyanide in isolated ferret hearts is increased in the presence of an inhibitor of lactate transport. *J. Muscle Res. and Cell Motil.*, vol. 8, 91.

EVANS, A. L., HARRISON, L. M., STEPHENS, J. A. 1987. Task dependent changes in cutaneomuscular reflex responses recorded in hand muscles in man. In *7th European Winter Conference on Brain Research.* S. Nicolaidis (editor), Val Torens (European Neurosciences Association, France: A. E. Bussom). 23.

EVANS, A. L., HARRISON, L. M., STEPHENS, J. A. 1986. Task dependent changes in cutaneomuscular reflex response in human first dorsal interosseous muscle. *J. Physiol.*, vol. 381, 47P.

FALK, G., SHEILLS, R. A. 1987. Specialised glutamate receptors for retinal rod signals. In *Excitatory Amino Acid Transmission,* 47-50. T. P. Hicks, D. Lodge, H. McLennan (editors). (New York: Liss).

FALK, G., SHIELLS, R. A. 1986. Differential effects of a spider toxin on glutamate receptors of rod on bipolar cells and horizontal cells in dogfish retinal slice. *J. Physiol.*, vol. 377, 45P.

FALK, G., SHIELLS, R. A. 1986. Do horizontal cell responses contribute to the electroretinogram (ERG) in dogfish? *J. Physiol.*, vol. 381, 113P.

FELGATE, T. C. G. 1986. The consequences of reduced metabolic substrate supply during spreading depression in the mammalian cerebral cortex. *Neurosci. Letts.*, vol. 26, S194.

FORSLING, M. L. 1986. Pocket Examiner in Physiology. (Revised Edition). (Edinburgh: Churchill Livingstone). 170 pp.

FORSLING, M. L. (with Hawkins, S., Treasure, T., Aveling, W.) 1986. Changes in presser hormone concentrations in aassociation with coronary artery surgery. *Br. J. Anaesthesia,* vol. 58, 1267-1272.

FORSLING, M. L. (with others) 1986. Changes in plasma vasopressin concentration in association with coronary artery surgery of thymectomy. *Br. J. Anaesthesia*, vol. 58, 1273-1277.

FORSLING, M. L. (with Balment, R. J., Brimble, M. J., Musabayane, C. T.) 1986. The influence of neurohypophysial hormones on renal function in the acutely hypophysetomised rate. *J. Physiol.*, vol. 381, 439-452.

FORSLING, M. L., (with others) 1986. A synergestic effect of oxytocin and vasopressin on sodium excretion in the neurohyperphophysectomised rat. *J. Physiol.*, vol. 383, 453-464.

FORSLING, M. L. (with Olsson, J. F., Lindvall, B. Akerlund, M.) 1986. Cerebrospinal fluid arginine vasopressin Parkinson's disease, dementia and other degenerative disorders. *Adv. Neurol.*, vol. 45, 239-242.

FORSLING, M. L. (with Parrot, R. F., Thornton, S. N.) 1986. Neurohypophysial hormone release in sheep during water deprivation and psychological stress. *J. Endocrinol.* vol. 111, Suppl. A108.

FORSLING, M. L. (with Haukssen, A., Akerlund, M., Kindahl, H.) 1986. Plasmanivaer av vasopressin och en prostaglandin $F_{2\alpha}$ metabolit has kvinnor med primar dysmehorre fore och under behandling med P-piller Svenska Lakaresatt skapets. *Handlingar*, vol. 95, 222.

FORSLING, M. L., PEYSNER, K. (with Beale, K. J., Duffet, J. M.) 1986. Observations on the effect of progesterone on fluid balance and vasopressin metabolism in the rat. *J. Physiol.*, vol. 381, 38P.

FORSLING, M. L. (with others) 1987. Plasma atrial natriuretic peptide: Its relationship to changes in sodium intake plasma renin activity and aldosterone in man. *Clin Sci.*, vol. 72, 25-30.

FORSLING, M. L. (with others) 1987. Effects of ageing on vasopressin secretion, water excretion and thirst in man. *Kidney Int.*, vol. 32, Suppl. 21, 590-592.

FORSLING, M. L. (with Parrot, R. F., Thornton, S. N., Delaney, G. E.) 1987. Endocrine behavioural factors affecting water balance in sheep subjected to isolation stress. *J. Endocrinol.*, 112, 305-310.

FORSLING, M. K. (with Trewhella, M., Rickards, D., Dawson, P.) 1987. Dehydration, antidiuretic hormone and the intravenous urogram. *Br. . Radiol.*, vol. 60, 445-447.

FORSLING, M. L. (with Baldwin, B. A., Delany, C. E., Thornton, S. N.) 1987. Drinking and vasopressin release following intracerebroventricular injections of hypertonic saline in minipigs. *J.Physiol.*, vol. 382, 43P.

FORSLING, M. L., PEYSNER, K. (with Arora, A. S., Jenkins, D. P.) 1987. A comparison of the effects of ageing on fluid balance and vasopressin metabolism in the male and female rat. *J. Physiol.*, 384, 42P.

GARDNER-MEDWIN, A. R. 1986. A new framework for assessment of potassium-buffering mechanisms. *Ann. NY Acad. Sci.*, vol. 481, 287-302.

GARDNER-MEDWIN, A. R. (with Mutch, W. A. C.) 1987. The influence of *hypocerbia* on the resolution of transient increases in brain extracellular potassium. *Anaesthesiology*, vol. 66, 92-97.

HARRISON, P. J. 1986. A comparative study of the different subgroups of motor units of cat *triceps surae*. *Neurosci. Letts.*, vol. 26, S80.

HOLDER, D. S. 1986. Future perspective in imaging human brain function: A theoretical analysis of techniques that could image neuronal firing in the human brain. In *Neurology and Neurobiology, vol. 21*, 339-354. Battistin, L., Gerstenbrand, F.

(editors). *PET and NMR: New Perspectives in Neuroimaging and in Clinical Neurochemistry.* (New York: Alan R. Liss).

HOLDER, D. S. (with Abbot, R. J., Currie, S.) 1986. False positive anti-acetylcholine receptor antibodies in motoneurone disease. *Lancet* 1 (8486), 906-907.

HOLDER, D. S. 1987. The feasibility of developing a method of imaging neuronal activity in the human brain: A theoretical review. *Med. & Biol. Eng. & Comput.*, vol. 25, 2-11.

KENTISH, J. C., ALLEN, D. G. 1986. Evidence that a decrease in sarcomere length reduces the Ca-affinity of troponin in the intact cardiac myofibril. In *Mechanics of the Circulation*. 131-133. H. E-D. J ter Keurs and J. V. Tyberg (editors). (Dordrecht, Netherlands: Martinus Nijhoff).

KENTISH, J. C., ALLEN, D. G. 1986. Is force production in the myocardium directly dependent upon the free energy change of the ATP hydrolysis? *J. Mol. Cell Cardiol.*, vol. 18, 879-882.

KENTISH, J. C., ALLEN, D. G. 1986. Changes in calcium concentration in skinned cardiac muscle subjected to length changes. In *Proc. XXXth Congress Int. Union of Physiol. Sciences, Vancouver, 13-18 July 1986.* 353.

LYNN, B. (with Kellgren, J. H.) 1986. Pain. In *Copeman's Textbook of the Rheumatic Diseases (6th Ed.), Vol 1,* 143-160. *J. T. Scott* (editor). (Edinburgh: Churchill-Livingstone).

LYNN, B. 1986. The immediate and long-term effects of applying capsaicin to cutaneous nerves. In *Capsaicin and Sensory Systems*. G. Jancso, J. Szolcsanyi, M. Rethelyi (editors). *Proc. 50th Jubilee Congress, Hungarian Physiol. Soc. Acta Physiol. Hungarica*, vol. 69, 287-294.

LYNN, B. (with Barasum S,) 1986. Effects of sympathetic stimulation of mechanoreceptive and nociceptive afferent units from the rabbit pinna. *Brain Res.*, vol. 378, 21-27.

NEWHAM, D. J. (with Tomkins, A. M., Clark, C. G. C.) 1986. Contractile properties of the *adductor pollicis* in obese patient on a hypocaloric diet for two weeks. *Amer. J. Clin. Nutr.*, vol. 44, 756-760.

NEWHAM, D. J. (with Rutherford, O. M., Jones, D. A.) 1986. Clinical and experimental application of the percutaneous twitch superimposition technique for the study of human muscle activation. *J. Neurol.*, Neurosurg. Psych., vol. 49, 1288-1291.

NEWHAM, D. J. 1986. Nutritional status and skeletal muscle contractility. *Br. J. Parent. Therapy,* vol. 7, 96.

NEWHAM, D. J. (with Jones, D. A.) 1986. The effect of training with eccentric contractions on muscle fatigue, pain and damage. *Proc. of the XXXth Congress of the Int. Union of Physiol. Sciences, Vancouver, 13-18 July 1986.* 462.

NEWHAM, D. J. (with Tomkins, A. M., Clark, C. G.) 1986. The effect of hypocaloric feeding for two weeks on the contractile properties of the adductor pollicis of obese patients. *Proc. Nutr. Soc.*, vol. 45, 124A.

NEWHAM, D. J. (with Jones, D. A.) 1987. Chronic knee effusion and quadriceps inhibition before and after aspiration. *Clin. Sci.*, vol. 72, 47P.

NEWHAM, D. J. (with Edwards, R. H. T., Round, J. M., Jackson, M. J.) 1987. An examination of the factors influencing creatine kinase activities in the blood of patients with muscular dystrophy. *Muscle & Nerve*, vol. 10, 6-14.

NEWHAM, D. J. (with Edwards, R. H. T., Chapman, S. H., Jones, D. A.) 1987. Practical analysis of variability of muscle function measurements in Duchenne muscular dystrophy. *Ibid.*, 6-14.

NEWHAM, D. J. (with Harrison, R. A., Clark, C. G.) 1986. The effect of major abdominal surgery on skeletal muscle function. *Br. J. Surg.*, vol. 73, 1028.

PHILLIPS, S. K. WOLEDGE, R. C. (with Curtin, N. A.) 1987. An ergometer for isovelocity movement of small, isolated muscles. *J. Physiol.*, vol. 387, 3P.

REYNOLDS, M. L., SARANTIS, M. E. P., SAUNDERS, N. R. (with Møllgård, K.) 1987. Fetuin as a marker of cortical plate cells in the fetal cow neocortex: a comparison of the distribution of fetuin, α_2HS-glycoprotein, α-fetoprotein and albumin during early development. *Anat. Embryol.*, vol. 175, 355-363.

RIDDELL, J. S. (with Brown, A. G., Noble, R.) 1986. Relations between spinocervical and post-synaptic dorsal column neurones in the cat. *J. Physiol.*, vol. 381, 333-349.

SAUNDERS, N. R. (with Møllgård, K.) 1986. The development of the human blood-brain and blood-csf barriers. *Neuropath. App. Neurobiol.* , vol. 12, 337-358.

SHIELLS, R. A., FALK, G. 1987. Jorto spider venom: glutamate agonist and antagonist on the rod retina of the dogfish. *Neurosci. Letts.*, vol. 77, 221-225.

STEPHENS, J. A. 1987. Short term synchronisation of motor unit contractions during voluntary contractions in man. In *International symposium on different approaches to the motor unit*, 96 W. A. Nix (editor). (Mainz: Univ. Mainz).

STEPHENS, J. A. (with Datta, A. K.) 1987. Continuous electrical stimulation of adjacent fingers reduces the cutaneomuscular reflex response in human first dorsal interosseous muscle. *J. Physiol.*, vol. 387, 53P.

SUTTON, P. M. I. (with Abed, J. S. M., F. S. Nashat) 1986. Retrograde infusion of blood into a pulmonary vein promotes natriuresis in anaesthetised dogs. *Quart. J. Exp. Physiol.*, vol. 71, 609-614.

SUTTON, P. M. I. (with others) 1987. Intraoperative recording of the left ventricular myocardial action potential to demonstrate relief of ischaemia. *Brit. Heart J.*, vol. 57, 77-78.

SUTTON, P. M. I. (with others) 1987. Assessment of myocardial revascularisation at the time of graft completion by monophasic action potential recordings. *Ibid.*, 93.

SWANN, K., WHITAKER, M. J. 1986. An inexpensive microprocessor-based system for the measurement of cytoplasmic free calcium concentration in single cells using the calcium-sensitive indicator dye, fura 2. *J. Physiol.*, vol. 377, 12P.

SWANN, K., WHITAKER, M. J. 1986. Neomycin prevents the fertilisation calcium transient and exocytosis in sea urchin eggs. *Ibid.*, 50P.

SWANN, K., WHITAKER, M. J. 1986. The part played by inositol trisphosphate and calcium in the propagation of the fertilisation wave in sea urchin eggs. *J. Cell. Biol.*, vol. 103, 2333-2342.

TANOKURA, M., WOLEDGE, R. C. 1987. Action of dantrolene on force and heat production in isolated muscle fibres of the frog. *J. Physiol.* (C17 June 1987 Meeting).

VALDEOLMILLOS, M., SMITH, G. L., EISNER, D. A., ALLEN, D. G. 1987. The effects of rapid application of caffeine on intracellular calcium concentration in ferret papillary muscle. *J. Muscle Res. and Cell Motil.* , vol. 8, 91.

WHITAKER, M. J. 1985. An imaging photon detector for the measurement of low-intensity luminescene. *J. Physiol.*, vol. 365, 5P.

WHITAKER, M. J. 1985. Calcium-dependent polyphosphoinositide hydrolysis during exocytotic secretion in bovine adrenel medullary cells permeabilised by application of high electric fields. *Ibid.*, 60P.

WHITAKER, M. J. (with others). 1986. Uptake and release of calcium by isolated egg cortices of the sea urchin *Paracentrotus lividus*. *Biology of the Cell*, vol. 58, 53-57.

WHITAKER, M. J. 1987. Cellular messengers and sea urchin egg activation. *J. Cell. Biochem.*, Supp. 11C, 4.

WHITAKER, M. J., (with Zimmerberg, J.) 1987. Inhibition of secretory granule discharge during exocytosis in sea urchin eggs by polymer solutions. *J. Physiol.*, vol. 389, 5427-540.

WILKIE, D. R., WRAY, S. 1986. The response of the African frog *Xenopus laevis* to increased salinity demonstrated by ^{31}P NMR spectroscopy. *J. Physiol.*, vol. 381, 30P.

WILSON, M. G. A., WOLEDGE, R. C. (with Curtin, N. A., Howarth, J. V., Rall, J. A.) 1986. Absolute values of myothermic measurements on single muscle fibres from frog. *J. Muscle Research & Cell Motil*, vol. 7, 327-332.

WOLEDGE, R. C. (with Curtin, N. A.) 1987. Force-velocity relation of living fibres from dogfish white muscle. *J. Physiol.* (C17 Jan 1987 Meeting).

WRAY, S. (with Dawson, M. J.) 1987. Studies of uterine bioenergetics using ^{31}P nuclear magnetic resonance spectroscopy. In *Magnetic Resonance of the Reproductive System*, 97-116. S. McCarthy, F. Haseltine (editors). (Slack Inc.).

WRAY, S. (with Dawson, M. J.) 1986. A ^{31}P NMR study of phosphorus metabolites and pH in pregnant and non-pregnant rat uterus. In *Magnetic Resonance in Biology and Medicine*. 562-563. (Berkley, USA: Society for Magnetic Resonance in Medicine).

WRAY, S. (with Tofts, P.) 1986. Values of phosphorus metabolite concentrations in *in vivo* brain and muscle, measured directly using surface coils. *Ibid.*, 564-565.

WRAY, S. (with others) 1986. Quantitation of cerebral oxygenation in sick newborn infants by near infrared spectrophotometry. *Lancet* ii, 1063-1066.

WRAY, S. (with others) 1986. In vivo determination of changes in cerebral haemoglobin and cytochrome aa_3 oxygenation in rats by transmission near infrared spectrophotometry. *J. Physiol.*, vol. 381, 15P.

WRAY, S. (with others) 1986. Continuous non-invasive monitoring of cerebral oxygenation in six newborn infants by near infrared spectrometry. *Paediat Res.*, vol. 20, 1053.

WRAY, S. 1987. Intracellular pH (pHi) measurement and regulation rat uterine smooth muscle studied by ^{31}P nuclear magnetic resonance (nmr) spectroscopy. *J. Mus. Cell. Motil.*, vol. 8, 78-79.

WRAY, S. (with Cady, E. B., Egan, C. J. Rennie, M. J.) 1987. Artefactual variation in rat skeletal muscle [ATP] with fasting and insulin treatment: biochemical and NMR studies. *J. Physiol.*, vol. 384, 61P.

FACULTY OF CLINICAL SCIENCES

CLINICAL PHARMACOLOGY

CROOK, T. R., McLEAN, A. E. M. (with Souhami, R. L.) 1986. Cytotoxicity, DNA crosslinking and single strand breaks induced by activated cyclophosphamide and acrolein in human leukaemia cells. *Can. Res.*, vol. 46, 5029-5034.

CROOK, T. R., WHYMAN, G. D., McLEAN, A. E. M. (with Souhami, R. L.) 1986. Glutathione depletion as a determinant of sensitivity of human leukaemia cells to cyclophosphamide. *Can. Res.*, vol. 46, 5035-5038.

HUE, D. P., BEALES, D., GRIFFITH, K., McLEAN, A. E. M. 1986. Permeability of isolated hepatocytes and impermeability of cultured hepatocytes and liver slices to EDTA. *Food Chem. Toxicol.*, vol. 24, 801-802.

LAURENCE, D. R. (with Bennett, P. N.) 1987. *Clinical Pharmacology*, 6th edition. (Edinburgh Churchill Livingstone) 776 pp.

LAURENCE, D. R. 1987. The academic clinical pharmacologist and the Royal College of Physicians Report on the relationship between physicians and the pharmaceutical industry. *Br. J. Clin. Pharmacol.*, vol. 23, 253-255.

McDANELL, R., McLEAN, A. E. M. (with Hanley, A. B., Heaney, R. K., Fenwick, G. R.) 1987. Differences in initial induction of mixed-function oxidase (MFO) activity in rat liver and intestine by diets containing processed cabbage: correlation with cabbage levels of glucosinolates and glucosinolate hydrolysis products. *Food Chem. Toxicol.*, vol. 25, 363-368.

McLEAN, A. E. M., McDANELL, R., TACCHI-BEDFORD, A. M. (with Driver, H. E.) 1986. The influence of diet on activation and inactivation of chemicals. Evidence from animals and man. In *New Concepts and Developments in Toxicology*, 79-89. P. L. Chambers, P. Gehring, F. Sakai (editors). (Amsterdam: Elsevier).

McLEAN, A. E. M. 1986. Why do patients still die from paracetamol poisoning? *Br. Med. J.*, vol. 293, 1172.

McLEAN, A. E. M. 1987. Umwelt und Gesundheit. *Hepatologie*, vol. 1, xxxi-xxxxiv.

McLEAN, A. E. M. 1986. How useful are carciongenicity studies? *Proc. Assoc. Clin. Res. Pharm. Ind.*, London, 11 December 1986.

McLEAN, A. E. M., BEALES, D. 1986. Paracetamol as a cause of dietary deficiency of sulphur amino acids. *Proc. Brit. Pharm. Soc.* Meeting, December 1986.

McLEAN, A. E. M. 1987. Detecting carcinogenicity in new drugs. In *Proc. BIBRA annual symposium 1987.*

McLEAN, A. E. M., McDANELL, R., TACCHI-BEDFORD, A. M. (with Driver, H. E.) 1986. The influence of diet on activation and inactivation of chemicals, evidence from animals and man. *Abstracts, IV Int. Toxicol. Congr., Tokyo, Japan*, 21-25 July 1986, *Toxicology Letters*. vol. 31, 10.

McLEAN, A. E. M., (with Driver, H. E., Lowe, D., Sutherland, I.) 1986. Thresholds for tumour promotion by phenobarbital after nitrosamine exposure in rat and man. *Ibid.*, 200.

PRICHARD, B. N. C., WALDEN, R. J. 1986. Problems with the withdrawal of antihypertensive drugs. In *Zentrale versus periphere Mechanismen der Blutdruckregulation*, 36-43. J. Rosenthal (editor). (Munich. Bern, Vienna, San Francisco: W. Zuckschwerdt Verlag).

PRICHARD, B. N. C. (with others) 1986. Introduction: Position of beta blockers in antihypertensive therapy. *J. Cardiovasc. Pharmacol.*, vol. 8 (Suppl 6), S1-S4.

PRICHARD, B. N. C. (with others) 1986. Double-blind comparison of the cardioselective ß-blockers bisoprolol and atenolol in hypertension. The Bisoprolol International Multicentre Study (BIMS). *J. Cardiovasc. Pharmacol.*, vol. 8 (Suppl 11), S122-S127.

PRICHARD, B. N. C. (with others) 1986. Smoking status and cardioselective beta-blockade in antihypertensive therapy: The Bisoprolol International Multicentre Study (BIMS). *J. Hyper.*, vol. 4 (Suppl 6), S144-S146.

PRICHARD, B. N. C. 1987. Pharmacologic aspects of intrinsic sympathomimetic activity in beta-blocking drugs. *Am. J. Cardiol.*, vol. 59, 13F-17F.

SMITH, C. C. T., CURTIS, L. D., DELAMOTHE, A. P., PRICHARD, B. N. C., BETTERIDGE, D. J. 1986. Plasma adrenaline measurement. *Clinc. Sci.*, vol. 70, 211-212.

SMITH, C. C. T., WILSON, A. P., CURTIS, L. D., PRICHARD, B. N. C., BETTERIDGE, D. J. 1986. Platelet efflux of noradrenaline in normal and diabetic subjects. *Diabetologica*, vol. 29, 595A.

SMITH, C. C. T., WILSON, A. P., BETTERIDGE, D. J. PRICHARD, B. N. C. 1986. Release of platelet noradrenaline in normal and diabetic subjects. *Diabetic Med.*, vol. 3, 574A.

de SWIET, M. 1986. Medical disorders in pregnancy. In *Treatment and Prognosis in Obstetrics and Gynaecology.* J. G. Grudzinskas, T. Beedham, R. Hawkins (editors). (London: W. Heinemann Medical Books Ltd.)

de SWIET, M. 1986. Physiology of normal pregnancy. In *Hypertension in Pregnancy, Vol. 12. Handbook of Hypertension*. P. C. Rubin (editor). (Amsterdam: Elsevier Science Publishers V.B.).

de SWIET, M. 1986. Respiration. In *Scientific Foundations of Obstetrics and Gynaecology, 3rd Edition*. P. E. Barnes, M. Newton (editors). (London: W. Heinemann Medical Books Ltd.).

de SWIET, M. 1986. Pregnancy and cardiovascular disease. In *Foundations of Obstetric Anaesthesia*. B. M. Morgan (editor). (London: Farrand Press).

de SWIET, M. 1986. Chest disease in pregnancy. In *Oxford Textbook of Medicine, 2nd edition*. D. J. Weatherall, J. G. G. Ledingham, D. A. Warrell (editors). (Oxford: Oxford University Press).

de SWIET, M. 1986. Thromboembolism in pregnancy. *Ibid.*

de SWIET, M. 1986. The Cardiovascular System. In *Basic Science of Obstetrics and Gynaecology.* M. de Swiet, J. Dewhurst, G. V. P. Chamberlain (editors). (Edinburgh: Churchill Livingstone).

de SWIET, M. 1986. The epidemiology of hypertension in children. In *Childhood Epidemiology*, 172-175. E. Alberman, C. Peckham, (editors). (Londson: British Medical Bulletin, vol. 42).

de SWIET, M. 1987. Cardio respiratory disease. In *Problems in Obstetric Anaesthesia*, 139-147. B. Morgan (editor). (London: J. Wiley and Sons).

de SWIET, M. 1987. Cardiovascular risk factors in infancy and childhood. In *Paediatric Cardiology.* R. H. Anderson (editor). (Edinburgh: Churchill Livingstone).

de SWIET, M. 1987. Cardiovascular problems in pregnancy. In *Textbook of Obstetrics*. A. Turnbull, G. V. P. Chamberlan (editors). (Edinburgh: Churchill Livingstone).

de SWIET, M. 1986. The value of blood pressure measurement in childhood. *J. Maternal and Child Health*, vol. 11, 306-311.

de SWIET, M. 1986. Respiratory disorders of pregnancy. *Medicine, North America*. 2nd series. 5560-5670.

de SWIET, M. 1987. Prescribing in pregnancy - anticoagulants. *Br. Med. J.*, vol. 294, 428-430.

de SWIET, M. (with Chapman, M. G., Jones, M., Spring, J. E., Chamberlain, G. V. P.) 1986. The use of birthroom: a randomized controlled trial comparing delivery with that in the labour ward. *Br. J. Obstet. Gynaecol.*, vol. 93, 182-187.

de SWIET, M. (with Hague, W. M.) 1986. A syndrome of liver damage and intravascular coagulation in the last tremester of normotensive pregnancy. A clinical and histopathological study. *Br. J. Obstet. Gynaecol.*, vol. 93, 1113-1114.

de SWIET, M. (with Petrie, J. C., O'Brien, E. T., Littler, W. A.) 1986. Recommendations on blood pressure measurement. *Br. Med. J.*, vol. 293, 611-615.

de SWIET, M. (with Petrie, J. C., O'Brien, E. T., Littler, W. A.) 1987. Standards for blood pressure measuring devices. *Br. Med. J.*, vol. 294, 1245-1246.

de SWIET, M. (with Petrie, J. C., O'Brien, E. T., Littler, W. A.) 1987. Recommendations on Blood Pressure Measurement. (London: British Medical Journal).

de SWIET, M. (with Talbert, D. G.) 1986. The measurement of cardiac output by electrical impedance, plethysmography in pregnancy. Are the assumptions valid? *Br. J. Obstet. Gynaecol.*, vol. 93, 721-726.

de SWIET, M. (with Walter, B. N. J., Thompson, M. E., Lee, A.) 1986. Blood pressure in the puerperium. *Clin. Sci.*, vol. 71, 589-594.

TACCHI-BEDFORD, A. M., WHYMAN, G. D., McLEAN, A. E. M. 1986. Effect of dietary beta-naphthoflavone on DNA alkylation in the rat large intestine after 1,2 dimethylhydrazine. *Proc. Brit. Assoc. Cancer Res.*, vol. 54, no. 1, 172.

WILSON, A. P., SMITH, C. C. T., PRICHARD, B. N. C., BETTERIDGE, D. J. 1986. Platelet catecholamines and platelet function. *Eur. J. Clin. Invest.*, vol. 16, no. 2, A5.

WILSON, A. P., SMITH, C. C. T., PRICHARD, B. N. C., BETTERIDGE, D. J. 1987. Platelet catecholamines and platelet function in normal human subjects. *Clin. Sci.*, vol. 73, 99-103.

WOLFF, S. P. 1987. The potential role of oxidative stress in diabetes and the diabetic complications: novel implications for theory and therapy. In *Diabetic Complications: Scientific and Clinical Aspects,* 167-220. M. J. C. Crabbe (editor). (London: Churchill Livingstone).

WOLFF, S. P. (with Crabbe, M. J. C., Lloyd, P.) 1986. Monosaccharide Autoxidation, Cataract and Aldose Reductase Activity. In *The Biophysics of Lens Transparency,* 119-126. G. Duncan, C. Slingsby (editors). (Netherlands: Elsevier).

WOLFF, S. P. 1986. Redox abnormalities and the steady-state accumulation of protein damage in cataract. *Proc. Int. Soc. Eye Res.*, vol. 4, 30.

WOLFF, S. P. (with Bhuyan, D. K., Podos, S. M., Bhuyan, K. C.) 1986. Anti-oxidants as inhibitors of lens aldose reductase and galactose-induced cataract in rats. *Invest. Ophthalmol. Vis. Sci.*, vol. 27, 136.

WOLFF, S. P. (with Crabbe, M. J. C., Petchey, M.) 1986. Monosaccharide-induced NADPH oxidation (aldose reductase activity) and the uptake of sorbinil and myo-inositol in incubated rat lenses. *Les. Res.*, vol. 3, 69-91.

WOLFF, S. P. (with Dean, R. T.) 1986. Fragmentation of proteins by free radical and its effect on their susceptibility to enzymatic hydrolysis. *Biochem. J.*, vol. 234, 399,-403.

WOLFF, S. P. (with Dean, R. T., Thomas, S. M., Vince, G.) 1986. Oxidation induced proteolysis and its possible restriction by some secondary protein modifications. *Biomed. Biochem. Acta,* vol. 45, 1563-1573.

WOLFF, S. P. (with Garner, A., Dean, R. T.) 1986. Free radicals, lipids and protein degredation. *Trends Bio. Sci.*, vol. 11, 27-31.

WOLFF, S. P. (wth Harding, J. J., Crabbe, M. J. C., Carr, B., Baynes, K., Aycliffe, W.) 1986. Bendazac and aldose reductase inhibitors as specific antioxidants. *Proc. Int. Soc. Eye Res.*, vol. 4, 80.

WOLFF, S. P. 1987. Aldose reductase or oxidative stress in diabetic cataract? Mechanistic considerations. *Invest. Ophthal. Vis. Sci.*, vol. 28, 78.

WOLFF, S. P. 1987. Problems affecting University Science. *Nature,* vol. 326, 735.

WOLFF, S. P. (with Dean, R. T.) 1987. Glucose autoxidative and protein modification: the potential role of 'autoxidation glycosylation' in diabetes. *Biochem. J.*, vol. 245, 243-250.

COMMUNITY MEDICINE

ELSTON, M. A. 1987. Women and antivivisection in Victorian England, 1870-1900. In *Vivisection in Historical Perspective,* 259-294. N. Rupke (editor). (London: Croom Helm).

ELSTON, M. A. (with Bury, M.) 1987. Professional collaboration and the abuse of children. In *After Beckford? Essays on Themes Related to Child Abuse,* 57-63. Social Policy Papers No. 1 (Royal Holloway and Bedford New College).

FULLER, J. H., HEAD, J. (with the WHO Multinational Study Group). 1986. The WHO Multinational Study of Vascular Disease in Diabetes - Morality Follow-up. In *Diabetes,* 375. M. Serrano-Rios and P. J. Lefebvre (editors). (Amsterdam: Elsevier Science Publishers BV).

FULLER, J. H. 1987. Mild Hypertension in Diabetic Patients; when to treat and how? In *Mild Hypertension: From drug trials to practice,* 71-76. T. Strasser and D. Ganten (editors). (New York: Raven Press).

FULLER, J. H. (with Robinson, N.) 1986. Severe life events and their relationship to the aetiology of insulin dependent (Type 1) diabetes mellitus. *Pediatric and Adolescent Endocrinology,* vol. 15, 129-133.

FULLER, J. H., HEAD, J. (with the WHO Multinational Study Group). 1986. Factors relating to mortality in 5,600 diabetic patients from 12 international centres. *Diabetologia,* vol. 29, 539A.

FULLER, J. H., STEVENS, L. K. (with the Diabetic Mild Hypertension Study Group). 1986. Blood pressure and its treatment in 2798 patients attending ten North Thames diabetic clinics. *Diabetic Medicine,* vol. 3, 583A.

FULLER, J. H. 1987. Epidemiologie du diabete non insulino-dependant. *Journees annuelles de diabetologie de l'Hotel-Dieu,* 247-253.

HEAD, J., FULLER, J. H. (with Moorish, N. J. and the WHO Multinational Study Group, London Centre). 1986. Causes of death among middle-aged diabetics. *Diabetic Medicine,* vol. 3, 362A.

KOGEVINAS, M. (with Katsouyanni, K., Trichopoulos, D.) 1986. Earthquake-related stress and cardiac mortality. *Int. J. Epidemiol.*, vol. 15, 326-330.

McCARTHY, M. 1986. Finanze e processo decisionale nel servizio sanitario nationale britannico. *Epidemiologia e Prevenzione,* vol. 8, no. 26, 12-14.

McCARTHY, M. 1986. Italy - health reforms. *Lancet,* vol, 2, 912.

MACFARLANE, A. J. 1986. Anaesthetics - The risks for black women. *Maternity Action,* vol. 26, 6.

MACFARLANE, A. J. (with Campbell, R.) 1986. Place of delivery: A review. *Br. J. Obstet, Gynaecol.,* vol. 93, 675-683.

MACFARLANE, A. J. (with Cole, S., Hey, E.) 1986. Comparison of data from regional perinatal mortality surveys. *Ibid.,* 1224-1232.

MACFARLANE, A. J. (with Campbell, R.) 1987. Where to be born? *The Health Service Journal,* vol. 97, 606.

MARMOT, M. G. 1986. Social Inequalities in Mortality: The social environment. In *Class and Health,* 21-34. R. G. Wilkinson (editor). (London: Tavistock Publications).

MARMOT, M. G. 1986. Social Patterns in Relation to Social Networks in Cardiovascular Disease. In *Social Support - Health and Disease,* 59-71. S. O. Isacsson and L. Janzon (editors). (Stockholm: Almqvist & Wiksell International).

MARMOT, M. G. (with Mann, J. I.) 1987. Epidemiology of Ischaemic Heart Disease. In *Oxford Textbook of Medicine,* 13.143-13.154, vol. 2. D. J. Weatherall, J. G. G. Ledingham and D. A. Warrell (editors). (Oxford University Press, 2nd edition).

MARMOT, M. G. (with Madge, N.) 1987. An epidemiological perspective on stress and health. In *Stress and Health: Issues in research methodology,* 3-27. S. V. Kasl and C. J. Cooper (editors). (Chichester: John Wiley & Sons Ltd).

MARMOT, M. G. (with Mann, J. I.) 1987. Epidemiology of ischaemic heart disease. In *Ischaemic Heart Disease.* (Current Status of Clinical Cardiology Series), 1-33. K. M. Fox (editor). (Lancaster: MTP Press Ltd).

MARMOT, M. G. 1986. Plenary Session: Proposals for action. *Complementary Medical Res.,* vol. 1, 70-87.

MARMOT, M. G., MARKOWE, J. L. J. (and others) 1986. The relationship between both sodium and potassium intake and blood pressure in London civil servants. *J. Chron. Dis.,* vol. 39, 211-219.

MARMOT, M. G. (with McDowall, M. E.) 1986. Mortality decline and widening social inequalities. *Lancet,* ii, 274-276.

MARMOT, M. G. (with Adelstein, A. M., Dean, G., Bradshaw, J.) 1986. Comparison of mortality of Irish immigrants in England and Wales with that of Irish and British nationals. *Irish Medical J.,* vol. 79, 186-189.

MARMOT, M. G. 1987. The patient as individual and statistic: Chairman's summing up. *Complementary Medical Res.,* vol. 2, 117-121.

MARMOT, M. G. (with Madge, N.) 1987. Psychosocial factors and health. *The Q. J. of Social Affairs,* vol. 3, 81-134.

MARMOT, M. G., KOGEVINAS, M., ELSTON, M. A. 1987. Social/economic status and disease. *Ann. Rev. of Public Health,* vol. 8, 111-135.

MARMOT, M. G., 24 March 1987. Radio 4, Medicine Now.

PATEL, C. 1987. *Fighting Heart Disease.* (London: Dorling Kindersley).

PATEL, C. 1986. Prevention paradox in coronary heart disease. In *Biological and Psychological Factors in Cardiovascular Diseases,* 533-549. T. Schmidt, T. Dembroski and G. Blumchen (editors). (Heidelberg: Springer-Verlag).

PATEL, C. 1986. The current dilemma in the treatment of mild hypertension. *Holistic Medicine,* vol. 1, 183-199.

PATEL, C., MARMOT, M. G. 1987. Stress management, blood pressure and quality of life. In *Proc. of Heidelberg Symposium September 1986.* 'Quality of life under antihypertensive treatment'. *J. Hypertension,* vol. 5, Suppl 1, s21-s28.

PATEL, C., MARMOT, M. G. (with Steptoe, A., Hunt, B.) 1987. Frequency of relaxation practice, blood pressure reduction and the general effects of relaxation following a controlled trial of behavioural modification for reducing coronary risk. *Stress Medicine,* vol. 3, 101-107.

RODGERS, B. (with Mann, S. A.) 1986. The reliability and validity of PSE assessment by lay interviewers: a national population survey. *Psychological Medicine,* vol. 16, 689-700.

RODGERS, B., WADSWORTH, M. E. J., DAVIES, J. M. C. (with Braddon, F. E. M.) 1986. Onset of obesity in a 36 year birth cohort study. *Br. Med. J.,* vol. 293, 299-303.

WADSWORTH, M. E. J. 1986. Serious illness in childhood and its association with later life achievements. In *Generating Inequalities: Health and social mobility,* 50-74. R. G. Wilkinson (editor). (London: Tavistock Publications).

WADSWORTH, M. E. J. 1986. Evidence from three birth cohort studies for longterm and cross-generational effects on the development of children. In *Children of Social Worlds,* 116-134. M. P. M. Richards and P. Light (editors). (Oxford: Polity Press and Harvard University Press).

WADSWORTH, M. E. J., BRITTEN, N. (with Fenwick, P. B. C.) 1986. Sources of stigma following early-life epilepsy: evidence from a national birth cohort study. In *Psychopathology in Epilepsy: social dimensions,* 228-244. S. Whitman and B. P. Hermann (editors). (Oxford University Press).

WADSWORTH, M. E. J. 1986. Generation differences in child health. *Early Childhood Development and Care,* vol. 25, 1-10.

WADSWORTH, M. E. J. 1986. The role of the large scale longitudinal design in studies of child development. *Ibid.,* 291-304.

WADSWORTH, M. E. J. 1986. Effects of parenting style and preschool experience on children's verbal attainment: a British longitudinal study. *Early Childhood Res. Q.,* vol. 1, 237-248.

WADSWORTH, M. E. J. 1986. Parents' divorce and children's life chances. *Children and Youth Services Review,* vol. 8, 145-159.

WADSWORTH, M. E. J. 1987. Follow-up of the first British national birth cohort: findings from the MRC National Survey of Health and Development. *Paedriatric and Perinatal Epidemiology,* vol. 1, 95-117.

DENTAL SCHOOL

BRADEN, M. 1986. Water absorption characteristics of some unfilled resins. *Biomaterials,* vol. 7, 474-476.

BRADEN, M. (with Patel, M. P., Davy, K. W. M.) 1986. Polymerisation shrinkage of methacrylate esters. *Biomaterials,* vol. 8, 53-56.

BRADEN, M. (with Rodford, R.) 1986. The development of new high impact strength denture base materials. *J. Dent.,* vol. 14, 214-217.

DONOGHUE, H. D., HUDSON, D. E., PERRONS, C. J. 1987. Effect of the lacto-peroxidase system on streptococcal acid production and growth. *J. Dent. Res.,* vol. 66, no. 2, 616-618.

DONOGHUE, H. D. 1987. A mouthful of microbiol ecology. *New Scientist*, vol. 1546, 61-65.

FLETCHER, A. M. 1986. Dental Materials: 1983 Literature Review Part I. E. C. Combe (editor). *J. Dent.*, vol. 14, no. 3, 93-113.

FLETCHER, A. M. 1986. Dental Materials: 1983 Literature Review Part II. E. C. Combe (editor). *J. Dent.*, vol. 14, no. 4, 139-155.

FLETCHER, A. M. 1987. Dental Materials: 1984-85 Literature Review Part I. R. van Noort (editor). *J. Dent.*, vol. 15, no. 2, 47-66.

FLETCHER, A. M. 1987. Dental Materials: 1984-85 Literature Review Part II. R. van Noort (editor). *J. Dent.*, vol. 15, no. 3.

FLETCHER, A. M. 1986. Ethnic variations of some important prosthetic cranial measurements. *Proc. Eur. Prosthodontic Assoc. 1985*, vol. 9, 28-30.

FLETCHER, A. M. (with Ritchie, G. M., Amin, W. M., Dodd, A. W.) 1986. The effect of water and saliva on the bond strength of PMMA to differing interface contours of acrylic teeth. *Proc. Eur. Prosthodontic Assoc. 1985*, vol. 9, 73-75.

GROVES, B. J., GOH, C. J. W., WAITE, I. M., CORNICK, D. E. R. 1986. The influence of gingival inflammation and pocketing on the rate of plaque formation during non-surgical periodontal treatment. *Brit. Dent. J.*, vol. 161, 165-169.

GROVES, B. J., GOH, C. J. W., WAITE, I. M., CORNICK, D. E. R. 1987. The influence of gingival inflammation and pocketing on the rate of plaque formation during non-surgical periodontal treatment. *Oral Health*, vol. 77, 51-55.

HARRIS, M. 1986. Treatment of fractures of Zygomatic bone and arch. In *Rob and Smith's Operative Surgery - Nose and Throat* (4th edition), 17. J. C. Ballantyne and D. F. N. Harrison (editors). (London: Butterworth).

HARRIS, M. 1986. Treatment of fractures of the mandible. *Ibid.*, 25.

HARRIS, M. 1986. Treatment of fractures of the maxilla. *Ibid.*, 41.

HARRIS, M. 1986. Treatment of blow out fractures of the orbit. *Ibid.*, 50.

HARRIS, M. (with Canniff, J. P., Harvey, W.) 1986. Oral submucous fibrosis: its pathogenesis and management. *Brit. Dent. J.*, vol. 160, no. 12, 429-434.

HARRIS, M. (with Hashish, I., Harvey, W.) 1986. Anti-inflammatory effects of ultrasound therapy; evidence for a major placebo effect. *Br. J. Rheumatology*, vol. 25, 77-81.

HARRIS, M. 1987. Medical versus surgical management of temporomandibular joint pain and dysfunction. *Br. J. Oral and Maxillofacial Surg.*, vol. 25, 113-120.

HARRIS, M. (with Shanson, D. C., Shehata, M., Tadayon, M.) 1987. Comparison of intramuscular teicoplanin with intramuscular amoxycillin for the prophylaxis of steptococcal bacteraemia in dental patients. *J. Antimicrobial Chemotherapy in Plas.*, vol. 20, 85-93.

LEE, KHEE, WEE, 1986. Connective tissue diseases with oral manifestation. In *Immunological Aspects of Oral Diseases*, 149-159. L. Ivanyi (editor). (Lancaster: MTP Press Ltd).

LEE, KHEE, WEE, (with Shabana, A. H. M., El-Labban, N. G.) 1987. Morphometric analysis of basal cell layer in oral premalignant white lesions and squamous cell carcinoma. *J. Clin. Pathol.*, vol. 40, 454-458.

PEARSON, G. J., HEGARTY, S. 1987. Deformation of cusps by cured posterior composite in MOD cavities. *J. Dent. Res.*, Spec. ed. A.

PEARSON, G. J. 1987. In vitro measurement of leakage using three different fissure sealing techniques. *J. Dent. Res.*, Spec. ed. A.

PICTON, D. C. A. 1986. Basis for the use of topical and systemic fluorides in caries prevention. *J. Roy. Soc. Med.*, Supp. 14, vol. 79. 18-21.

PICTON, D. C. A. 1987. The effect of excision of the root apex on the intrusive mobility of anterior teeth in adult monkeys (M. fascicularis). *Archs. Oral Biol.*, vol. 32, 323-327.

PICTON, D. C. A. 1987. The effect on intrusive tooth mobility of acute removal of cervical periodontal ligament in adult monkeys. *Proc. Brit. Soc. Dent. Res.*, 302.

PICTON, D. C. A. (with Creasey, S. J.) 1987. Some possible causes of error in the construction of crowns, bridges and dentures. *Proc. Brit. Soc. Dent. Res.*, 28.

SHEIHAM, A. 1986. Clinical oral health evaluation parameters which are compatible with an acceptable level of oral health. *Prevention of Oral Diseases - report of a WHO Workshop. Erfurt, December 1983.* (Department of Stomatology, Erfurt). 31-39.

SHEIHAM, A. 1986. An analysis of existing dental services in relation to periodontal care. *Ibid.*, 40-51.

SHEIHAM, A. (with Leverett, D. H.) 1986. Epidemiology: the methods and their utilization. In *Systematized Prevention of Oral Disease, Theory and Practice.* 117-128. L. Granath and W. D. McHugh (editors). (Florida: CRC Press Inc.).

SHEIHAM, A. (Barnes, D. E.) 1986. The goals and stratagies of community dentistry in developing countries. *Ibid.*, 215-221.

SHEIHAM, A. (with Leverett, D. H.) 1986. The goals of community dentistry in industrialized countries. *Ibid.*, 224-230.

SHEIHAM, A., MAIZELS, A. 1987. A new measure of teeth-cleaning efficiency and periodontal disease. *J. Clin. Periodont.*, vol. 14, 105-109.

SHEIHAM, A. (with Narendron, S.) 1986. Caries trends and sugar consumption in developing countries. *J. Dent. Res.*, vol. 65, 745 (Abstract 180).

SIMS, W. 1986. Effect of carbon dioxide on the growth and form of candida albicans. *J. Med. Microbiol.*, vol. 22, 204-208.

TINKLER, S. M. B. (with Williams, D. M.) 1986. 1 -hydroxyvitamin D stimulates division of acid phosphatase positive mouse endosteal cells. *Proc. Int. Assoc. Oral Path. Edinburgh, September 1986.*

TINKLER, S. M. B., SINGH, N. (with Cox, G., Williams, D. M.) 1986. Does epithelial membrane antigen identify potentially malignant mucosal lesions? *Proc. Int. Assoc. Oral Path. Edinburgh, September 1986.*

TINKLER, S. M. B. (with Cox, G., Williams, D. M.) 1987. Epithelial membrane antigen expression as a prognostic indicator in oral mucosal epithelial dysplasia. *Proc. Brit. Soc. Dent. Res., London, March 1987.*

WAITE, I. M., LIM, L. P., TAY, F. B. K., CORNICK, D. E. R. 1986. A comparison of four techniques for clinical detection of early plaque formed during different dietary regimes. *J. Clin. Periodont.*, vol. 13, 658-665.

WAITE, I. M., GOH, C. J. W., GROVES, B. J., CORNICK, D. E. R. 1987. Gingival inflammation and pocketing. *Oral Health*, vol. 47, 51-55.

WAITE, I. M., GALGUT, P. N. (with Todd-Pokropek, A., Barnby, G. J.) 1987. The relationship between the multidimensional health locus of control and the performance of subjects on a preventive periodontal programme. *J. Clin. Periodont.*, vol. 14, 171-175.

WAITE, I. M. (with Strahan, J. D.) 1987. *A Colour Atlas of Periodontal Surgery.* (London: Wolfe Medical Publications Ltd.). 64 pp.

WATSON, T. F. (with Boyde, A.) 1987. Tandem scanning reflected light microscopy: a new method for *in vitro* assessment of dental operative procedures and restorations. *Clin. Mats.*, vol. 2, 33-43.

WATSON, T. F. (with Boyde, A.) 1987. The use of fluorescent markers for studying the distribution of a dentine bonding agent between a composite restoration and tooth. *Ibid.*, 45-53.

EXPERIMENTAL PATHOLOGY

ALLAN, D., RAVAL, P. J. 1987. A sphingomyelinase-resistant pool of sphingomyelin in the nuclear membrane of hen erythrocytes. *Biochim. Biophys. Acta,* vol. 897, 355-363.

ALLAN, D. (with Evans, W. H., Payares, G.) 1987. The phospholipid and fatty acid composition of Schistosoma mansoni and of its purified tegumental membrane. *Mol. Biochem. Parasitol.*, vol. 23, 123-128.

ALLAN, D. (with Evans, W. H.) 1987. Changes in unsaturated fatty acids in serum lipids of hamsters infected with schistosomes. *Biochim. Biophys. Acta,* vol. 919, 199-201.

BARROWMAN, M. M., COCKCROFT, S., GOMPERTS, B. D. 1987. Differential control of azurophilic and specific granule exocytosis in Sendai virus-permeabilized rabbit neutrophils. *J. Physiol.*, vol. 383, 115-124.

COCKCROFT, S. 1986. The dependence on Ca^{2+} of the guanine nucleotide-activated polyphosphoinositide phosphodiesterase in neutrophil plasma membranes. *Biochem. J.*, vol. 240, 503-507.

COCKCROFT S., TAYLOR, J. A. 1987. Fluoroaluminates mimic guanosine 5'-?:-thio ?triphosphate in activating the polyphosphoinositide phosphodiesterase of hepatocyte membranes: role for the guanine nucleotide regulatory protein, G_p, in signal trasduction. *Biochem. J.*, vol. 241, 409-414.

COCKCROFT, S., LAMB, J. R., ZANDERS, E. D. 1987. Inositol lipid metabolism in human T lymphocytes activated via the T3 complex. *Immunology,* vol. 60, 209-212.

COCKCROFT, S. 1986. Phosphoinositides and neutrophil activation in Phosphoinositides and Receptor Mechanisms. In *Receptor Biochemistry and Methodology,* vol. 7, 287-310. J. W. Putney (editor). (New York: Allan R. Liss Inc.).

COCKCROFT, S. 1987. Polyphosphoinositides phosphodiesterase regulation by a novel guanine nucleotide binding protein, G_p. *Trends in Biochem. Sci.*, vol. 12, 75-78.

GOMPERTS, B. D., BARROWMAN, M. M., COCKCROFT, S. 1987. Dual role for GTP in the timulus-secretion sequence of mast cells and neutrophils. *Biomembrane and Receptor mechanisms, Fidia Research Series,* vol. 7, 279-294. E. Bertoli, D. Chapman, A. Canbria and U. Scapagnani (editors). (Padova: Liviana Press).

GOMPERTS, B. D. 1986. Calcium shares the limelight in stimulus-secretion coupling. *Trends in Biochem. Sci.*, vol. 11, 290-292.

HOWELL, T. W., GOMPERTS, B. D. 1987. Rat mast cells permeabilised with streptolysin-o secrete histamine in response to Ca^{2+} at concentrations buffered in the micromolar range. *Biochimica et Biophysica acta,* vol. 927, 177-183.

GERIATRIC MEDICINE

BIELAWSKA, C., RAI, G. S. 1986. The economics of home care for the elderly. *J. Management in Med.*, vol. 1, 94-103.

COLLINS, K. J. 1987. The Health of the Elderly in Low Indoor Temperatures. In *Unhealthy Housing, a Diagnosis,* 1-7. (The Institution of Environmental Health Officers and Legal Research Institute, University of Warwick).

COLLINS, K. J. 1986. Managing hypothermic patients at home. *Geriatric Medicine,* vol. 16, 29-33.

COLLINS, K. J. 1987. Physiological changes in the elderly predisposing to hypothermia. In *Hypothermia, Medical and Social Aspects,* 7-15. D. P. Maudgal (editor). (Oxford: Pergamon).

COLLINS, K. J., PLUCK, R. A. (with Durnin, C. J. A.) 1986. Peripheral venous compliance and vasomotor responses to cooling and warming in young and elderly subjects. *J. Physiol.,* vol. 382, 27P.

COLLINS, K. J. (with Ximenes, R., Cox, M., Tomkins, A. M.) 1987. Energy expenditure in accination, infection and controlled hyperthermia. *Proc. Nutr. Soc.,* vol. 46, 16A.

COLLINS, K. J. (Rapporteur and Editor). 1987. Health Impact of Low Indoor Temperatures. *World Health Organisation Environmental Health Series No. 16.* (Copenhagen: WHO Regional Office for Europe).

COLLINS, K. J. 1986. Hypothermia. 'Reporting London'. Thames TV. 18th December, 1986.

COLLINS, K. J. 1987. Heating, Health and Hypothermia. TV and Radio Belfast, N. Ireland. 15th January, 1987.

COTTENDEN, A. M., FADER, M. J., BARNES, K. E., JONES, T. M., MALONE-LEE, J. G. 1987. The clinical performance of incontinence pads in relation to their design and constituent materials. *Proc. of TAPPI Nonwovens Conf. Marriott's World Centre, Orlando, Florida, April 20-24, 1987.* (Tappi Press, USA). 155-168.

COX, MARIA L., HODKINSON, H. M. (with Rudd, A. G., Gallimore, Ruth, Pepys, M. B.) 1986. Real-time measurement of serum C-reactive protein in the management of infection in the elderly. *Age and Ageing,* vol. 15, 257-266.

EXTON-SMITH, A. N. (with Vander Cammen, T. J. M., Simpson, J. M., Fraser, R. M., Preker, A. S.) 1987. The Memory Clinic. A new approach to the detection of dementia. *Br. J. Psychiatry,* vol. 150, 359-364.

FADER, MANDY, BARNES, ELIZABETH, COTTENDEN, A., MALONE-LEE, J. 1986. Incontinence Garments: Results of a DHSS study. *Health Equipment Information report No. 159.* (London: HMSO). 37P.

FADER, MANDY, BARNES, ELIZABETH, MALONE-LEE, J., COTTENDEN, A. 1987. Choosing the right garment. *Nursing Times,* April 15, 78-85.

HARRINGTON, M. G. 1987. Fat embolism in old age: case reports and review of the literature. *J. Clin. exp. Gerontol.,* vol. 9, 107-120.

HARRINGTON, M. G., HODKINSON, H. M. 1987. Anticonvulsant drugs and bone disease in the elderly. *J. Roy. Soc. Med.,* vol. 80, 425-427.

HODKINSON, H. M. 1985. Screening for anaemia and its prevention. In *Blood disorders in the elderly,* 100-108. M. J. Denham and I. Chanarin (editors). (Edinburgh: Churchill Livingstone).

HODKINSON, H. M. 1986. The role of nonischemic cardiac pathology in heart failure of old age. In *Progress in Cardiology 14,* 311-314. P. N. Yu and J. F. Goodwin (editors). (Philadelphia: Lea & Febiger).

HODKINSON, H. M. 1987. Grundsatze der Krebstherapie im hohem Lebensalter. In *Krebs im Alter.* Kark/Werner (editors). (Darmstadt: Steinkopff).

HODKINSON, H. M. 1987. Changes during ageing in immunology, proteins, enzymes and hormones. *Ann. Clin. Biochemistry,* Suppl. 2, 28.

LUGON, MYRIAM, HODKINSON, H. M. (with Golding, R.) 1987. Confirming long-stay status. *Age and Ageing,* vol. 16, 13-16.

LUGON, M., COX, M. L., TONERI, D., HODKINSON, H. M. 1987. Plasma zinc, serum proteins and healing rate of leg ulcers in the elderly. *J. Clin. & Exper. Gerontol.,* vol. 9, 139-147.

MALONE-LEE, J. G. 1987. An approach to retirement and old age. *J. Royal Br. Legion,* January 1987.

MALONE-LEE, J. G. The expert clinical report on Oxybutymin Chloride, a submission to the Committee on Safety of Medicines, DHSS, London, 1987.

RAI, G. S., WRIGHT, G. (with Murphy, P. J.) 1987. *Case Presentations in Clinical Geriatric Medicine,* (London: Butterworths.) 136 pp.

WRIGHT, G., RAI, G. S. (with Murphy, P.) 1987. Nephrotic Syndrome in the elderly. *J. Am. Geriatric Soc.,* vol. 35, 170-173.

WRIGHT, G., SCOTT, L. C. (with Vander Cammen, T. J. M.) 1987. Memory Clinics aid diagnoses help improve patient management. *Geriatric Medicine,* vol. 17, 17-19.

HAEMATOLOGY

AZIM, T. (with Morgan-Capner, P., Morris, J. A., McIlmurray, M. B., Thomas, J. A., Crawford, D. H.) 1986. Immunohistological studies of lymphoproliferative lesions in a fatal case of Epstein-Barr virus infection. *J. Clin. Pathol.,* vol. 39, 1317-1322.

GALE, R., BEVERLEY, P. C. L., HUEHNS, E. R. (with ALLEN, C., WEERERATNE, H.) 1987. The Use of Monoclonal Antibodes UCHß and UCHγ for the antenatal diagnosis of ß-Thalassaemia. *Br. J. Haematol.,* vol. 65, 199-203.

GALE, R., HUEHNS, E. R. (and others) 1987. Thalassaemia intermedia: interaction of the triple α-globin gene arrangement and heterozygous ß- thalassaemia. *Br. J. Haematol.,* vol. 66, 109-112.

GOLDSTONE, A. H. (with MARTIN, P. J., ANDERSON, C. C. and others) 1986. LUCs in recovering bone marrow. *Clin. Lab. Haem.,* vol. 8, 1-8.

GOLDSTONE, A. H. (with ANDERSON, C. C., SOUHAMI, R. L. and others) 1986. Very high dose chemotherapy with autologous bone marrow rescue in adult patients with resistant relapsed lymphoma. *Cancer Chemo. Pharmacol.,* vol. 16, 170-175.

GOLDSTONE, A. H. (and others) 1986. Autologous bone marrow transplantation following high dose chemotherapy for adults with AML. *Br. J. Haematol.,* vol. 64, 529-537.

GOLDSTONE, A. H. (and others) 1986. Automated cytochemistry to identify acute leukemia, H6000 vs H1 vs S+IV. *J. Lab. & Clin. Haem.,* vol. 8, 33-41.

GOLDSTONE, A. H. (with ANDERSON, C. C. and others) 1986. Double autologous bone marrow transplantation - a cure for acute leukemia. In *Minimal residual disease in acute leukemia,* 221-233. T. Hagenbeck, B. Löwenberg (editors). (Amsterdam: Martinus Nijhoff).

GOLDSTONE, A. H. 1986. European experience of autologous bone marrow transplantation in non-Hodgkin's lymphoma and Hodgkin's disease. *Bone Marrow Transplantation,* vol. 1, Suppl. 1, 289.

GOLDSTONE, A. H., LINCH, D. C., 1986. High dose chemotherapy with autologous bone marrow transplantation for advanced relapsed adult Hodgkin's disease. *Ibid.*, 299.

GOLDSTONE, A. H. (and others) 1986. ABMT in 100 adults with diffuse NHL at relapse. *Ibid.*, 314.

GOLDSTONE, A. H., RICHARDS, J. D. M. (with ARMITAGE, R. J., CAWLEY, J. C.) 1986. Lymphocyte function after autologous bone marrow transplantation - a comparison of patients treated with allogeneic BMT and with chemotherapy only. *Br. J. Haematol.*, vol. 63, 637-647.

GOLDSTONE, A. H., GRIBBEN, J. G. 1987. Autologous Bone Marrow Transplantation. *Blood Reviews*, vol. 1.

GRIBBEN, J. G., GOLDSTONE, A. H., LINCH, D. C., (SOUHAMI, R. L., JELLIFFE, A. M.) 1987. Autologous bone marrow transplantation in advanced relapsed adult Hodgkin's disease. *Bone Marrow Transplantation*, vol. 2, Suppl. 1, 219.

GRIBBEN, J., SINGER, C. R. J., GOLDSTONE, A. H. (with DONES, L.) 1986. EBMT experience of ABMT in non-Hodgkin's Lymphoma & Hodgkin's Disease. *Blood,* vol. 68, no. 5, 273.

GRIBBEN, J., GILES, F., GOLDSTONE, A. H. (with Philip, T.) 1987. Central nervous system involvement in patients receiving ABMT for non-Hodgkin's Lymphoma, *Bone Marrow Transplantation*, vol. 2, Suppl. 1, 220.

GRIBBEN, J., GOLDSTONE, A. H., LINCH, (with ANDERSON, C. C.) 1987. Is irradiation of blood products necessary for patients receiving ABMT? *Ibid.*, 298.

GRIBBEN, J. G., GOLDSTONE, A. H. (with Ernst, P.) 1987. Bone Marrow Transplantation for non-Hodgkin's lymphoma in remission - allogeneic versus autologous. *Ibid.*, 264.

GRIBBEN, J., GOLDSTONE, A. H., LINCH, D. C. & RICHARDS, J. D. M. 1987. Double autografting as potential curative therapy in acute leukaemia. *Proc. 3rd Int. Symp. on Autologous Bone Marrow Transplantation.*

GRIBBEN, J. G., SINGER, C. R. J., GOLDSTONE, A. H., LINCH, D. C. (and others) 1987. EBMT Experience of autologous bone marrow transplantation in non-Hodgkin's lymphoma and Hodgkins disease. *28th Annual Meeting of the American Society of Haematology, December 1986. Blood*, vol. 68, Supp 1, 273a.

HUEHNS, E. R., PORTER, J. B. (with GYPARAKI, M., Hider, R. C.) 1987. Hydroxypyridone iron chelators; *in vitro* and *in vivo* evaluation. In *Thalassaemia today, the Mediterranean experience*, 521-526. G. Sirchia, A. Zenella (editors).(Centro Trasfusionale Ospedale Maggiore Policlinico di Milano Editore).

LINCH, D. C., AZIM, T. (and others) 1986. T cell receptor gene rearrangements define a monoclonal T cell proliferation in patients with T cell lymphocytosis and cytopenia. *Blood*, vol. 67, 914-918.

LINCH, D. C. (and others) 1986. Successful haploidentical mismatched bone marrow transplantation in severe combined immunodeficiency: T cell removal using CAMPATH-1 monoclonal antibody and E Rosetting, Br. J. Haematol., vol. 62, 421-430.

LINCH, D. C. MACINTYRE, E. A. (with VAUGHAN-HUDSON, G., VAUGHAN-HUDSON, B., JELLIFFE, A. M.) 1986. Selective peripheral blood eosinophilia is associated with a survival advantage in Hodgkin's disease. *J. Clinical Pathology*, vol. 40, 247-250.

MACINTYRE, E. A. 1986. The use of monoclonal antibodies for purging autologous bone marrow in the lymphoid malignancies. *Clinics in Haematology*, vol. 15, no. 1, 249-267.

MACINTYRE, E. A. 1986. Hypercalcaemia in chronic lymphatic leukaemia. *Postgraduate Medical Journal*, vol. 62, 393-394.

MACINTYRE, E. A. (with Macey, M. G., Newland, A. C.) 1986. Red cell sequestration during high dose intravenous immunoglobulin in idiopathic thrombocytopaenic purpura. *Blut*, vol. 53, 77-87.

MACINTYRE, A., LINCH, D. C. (with VAUGHAN-HUDSON, B., VAUGHAN-HUDSON, G., JELLIFE, A. M.) 1987. The incidence and clinical importance of bone marrow eosinophilia in Hodgkin's disease. *J. Clinical Pathology*, vol. 40, 245-246.

MACINTYRE, E. A., JONES, H. M., ROBERTS, P. J., TIDMAN, N., LINCH, D. C. 1987. Identification of signal transduction molecules on monocytic cells. In *Leucocyte Typing III*. A. J. McMichael, P. C. L. Beverley, et al. (Oxford University Press).

MACINTYRE, E. A., LINCH, D. C. (with VAUGHAN-HUDSON, B., VAUGHAN-HUDSON, G., JELLIFFE, A. M.) 1986. Routine staging bone marrow examination is no longer indicated in Hodgkin's Disease. *The British Society for Haematology, Cambridge, 4 April, 1986. B. J. Haematology*, vol. 64, 823-824.

PORTER, J. B., HUEHNS, E. R. (with Brazier, D. J., Gregor, Z. J., Black, R. K.) 1986. Retinal detachment in patients with proliferative sickle cell retinopathy. *Trans. Opthalmol. Soc. U.K.*, vol. 105, 100-105.

PORTER, J. B., BURKE, L. C. (with Nash, G. L.) 1986. Plasma lactoferrin as an indicator of total granulocyte pool following autograft and allograft procedures. *Bone Marrow Transplantation*, vol. 1, 282.

PORTER, J. B., BURKE, L. C., HUEHNS, E. R. (with GYPARAKI, M., Hider, R. C.) 1986. Comparison of the relative importance of iron binding constants and partition coefficients of iron chelators to hepatocellular iron mobilisation. (Abstract). *Proc. European Iron Club, Pavia, Italy, 1986.*

PORTER, J. B., HUEHNS, E. R. (with GYPARAKI, M., Hider, R. C.) 1986. The relationship between lipophilicity of hydroxypyrid-4-one iron chelators and cellular mobilisation, using an hepatocyte culture model. *Biochem.Soc.Trans.*, vol. 14, no. 6, 1182.

PORTER, J. B., BURKE, L. C., HUEHNS, E. R. (with GYPARAKI, M., Hider, R. C.) 1986. Evaluation in vivo of *hyroxypyridone* iron chelators intended for treatment of iron overload by the oral route. *Biochem.Soc.Trans.*, vol. 14, no. 6, 1181.

RICHARDS, J. D. M., SINGER, C. R. J. (with TOBIAS, J. S.) 1987. The management of multiple myeloma. *Br. J. Hospital Medicine*, vol. 37, 437-442.

RICHARDS, J. D. M., SINGER, C. R. J. (with BLACKMAN, G. M., SMITH, B. J., TOBIAS, J. S.) 1986. Double Hemibody Irradition as secondline management of multiple myeloma. *Br. J. Haematol.*, vol. 61, 573 (Abstract).

RICHARDS, J. D. M., GOLDSTONE, A. H. (with CAWLEY, J. C., LAI, A. P., MARTIN, P. J.) 1986. Automated leucocyte differential counts in acute leukemia: a comparison of the Hemalog D, H6000 and Counter S-plus IV. *Br. J. Haematol.*, vol. 8, 33-41.

RUSSELL, S., GILES, F., PORTER, J. B. (with EDWARDS, D., HARDMAN, S., HARRISON, R.) 1987. Perforation of S.V.C. by indwelling central venous catheters. *Lancet 1:* 8532, 568-569.

RUSSELL, S. J., SINGER, C. R. J. (with others) 1986. Frequency of severe neutropenia associated with amodiaquine prophylaxis against malaria. *Lancet 1:* 411-414.

ROBERTS, P. J., MACINTYRE, M. A., LINCH, D. C. 1987. Association of enhanced phosphorylation of a 43K protein and calcium flux in U937 cells. *Proc 21st Annual Meeting of the European Society for Clinical Investigation. Copenhagen-Elsinore, March, 1987. European Journal of Clinical Investigation,* vol. 17, 364.

ROBERTS, P. J. (with ARMITAGE, R. J., LAI, A. P., CAWLEY, J. C.) 1987. Certain myeloid cells possess receptors for IL2. *Br. J. Haematol.,* vol. 64, 799-807.

ROBERTS, P. J. (with ISENBERG, D. A., SEGAL, A. W.) 1987. Defective degradation of bacterial DNA by phagocytes from patients with systemic and discoid lupus erythematosus. *Clin. Exp. Immunol.,* vol. 69, 68-78.

ROBERTS, P. J. 1987. Development of digestion of bacterial DNA in maturing HL-60 cells. *Proc. 21st Annual Meeting of the European Society for Clinical Investigation. Copenhagen-Elsinore, March, 1987. Eur. J. Clin. Invest.,* vol. 17, no.2, Part 2: 57 (Abstract).

ROBERTS, P. J., MACINTYRE, E. A., LINCH, D. C. 1987. Association of enhanced phosphorylation of a 43K protein and calcium flux in U937 cells. *Eur. J. Clin. Invest.,* vol. 17, no. 2, Pt. 2. A64 (Abstract).

SINGER, C. R. J., GOLDSTONE, A. H. (with WALKER, H., Patterson, J., Prentice, H. G.) 1986. The significance of host haemopoietic cells detected by cytogenetic analysis of bone marrow from recipients of bone marrow transplants. *Br. J. Haematol.,* vol. 62, 385-391.

SINGER, C. R. J. (with Boulton, Jones, J. M.) 1986. Minimal change nephropathy associated with anaplastic carcinoma of bronchus. *Postgraduate Medical Journal,* vol. 62, 213-217.

SINGER, C. R. J., GOLDSTONE, A. H. 1986. Clinical studies of autologous bone marrow transplantation in non-Hodgkins lymphoma. *Clinics in Haematology,* vol. 15, 105-150.

SINGER, C. R. J. (with Walker, J. J., Cameron, A., Fraser, C.) 1986. Platelet studies in normal pregnancy and pregnancy-induced hypertension. *Clinical Laboratory Haematology,* vol. 8, 27-32.

SINGER, C. R. J., GOLDSTONE, A. H., LINCH, D. C., HUEHNS, E. R. (with BOWN, S. G.) 1987. Evaluation of phthalocyanine as a purging agent for bone marrow by clonogenic assays. *Bone Marrow Transplantation,* vol. 2, suppl. 50.

SINGER, C. R. J. 1986. Evaluation of Cyclophosphamide derivatives as purging agents in autologous bone marrow transplantation for AML. *Proc. XIIth Meeting of the European Group for Bone Marrow Transplantation, Courmeyeur, March 1986. Bone Marrow Transplantation,* vol. 1, suppl. 1, 275.

SINGER, C. R. J. 1986. Pharmacological purging of marrow autografts in AML - assessment by clonogenic assays. *Proc. Annual Meeting of the British Society for Haematology, Cambridge, 4 April 1986. Br. J. Haematology,* vol. 64, 832.

BOBROW, L. G. (and others) 1986. Characterization and chromosomal assignment of a human cell surface antigen defined by the monoclonal antibody AUA1. *Int. J. Cancer,* vol. 38, 631-636.

BOBROW, L. G., SHEPPARD, M. N., GRIFFITHS, M. (and others) 1986. Expression of epithelial and neural antigens in small cell and non small cell lung carcinoma. *J. Pathol.*, vol. 149, 103-111.

BOXALL, J. D., MICHAELS, L. (with Proops, D. W.) 1986. An investigation of the squamous cell epithelium of the human larynx by the method of tissue culture. *J. Otolaryngology,* vol. 15, 85-88.

GRIFFITHS, M. (with Rustin, M. H. A., Ridley, C. M.) 1986. The immunopathology of hypopigmented mycosis fungoides. *Clinical and Experimental Dermatology,* vol. 11, 332-339.

GRIFFITHS, M. H. (and others) 1987. T cell lymphoma in a patient with longstanding rheumatoid arthritis and Sjögren's syndrome. *Arthritis and Rheumatism,* vol. 30, 115-117.

GOULD, S. J., HOWARD, S. (with Hope, P. L., Reynolds, E. O. R.) 1987. Periventricular intraparenchymal cerebral haemorrhage in preterm infants: the role of venous infarction. *J. Pathol.*, vol. 151, 197-202.

GOULD, S. J. (with Colley, N., Knott, P.) 1987. Misdiagnosis of amphalocele associated with Edwards syndrome and congenital heart disease. *Prenatal diagnosis,* vol. 7, 377-381.

HELLQUIST, H., MICHAELS, L. 1986. Malignant mixed tumour. A salivary gland tumour showing both carcinomatous and sarcomatous features. *Virchows Archives (Pathol. Anat.),* vol. 409, 93-103.

ISAACSON, P. G. (with Wright, D. H.) 1987. Extranodal lymphoma. In *Recent Advances in Histopathology,* vol. 13, 159-184. P. P. Anthony and R. N. M. Macsween (editors). (Edinburgh: Churchill Livingstone).

ISAACSON, P. G. 1987. Malignant lymphoma. *Topics in Gastroenterology 14,* 35-43. D. P. Jewell and A. Ireland (editors). (Oxford: Blackwell Scientific Publication).

ISAACSON, P. G. 1986. Immune mechanisms in the appendix. In *The Aetiology of acute appendicitis. Southampton, 22nd May 1986,* 27-28. (MRC: Environmental Epidemiology unit).

ISAACSON, P. G. (with Kamat, B. R.) 1987. The immunocytochemical distribution of leukocytic subpopulations in human endometrium. *Am. J. Path.*, vol. 127, 66-73.

ISAACSON, P. G., SPENCER, J. 1987. Malignant lymphoma of mucosa-associated lymphoid tissue. *Histopathology,* vol. 11, 445-462.

ISAACSON, P. G. (with Gatter, K. C., Mason, D. Y., Heyderman, E.) 1987. Commentary: Which antibodies for diagnostic pathology? *Histopathology,* vol. 11, 661-664.

ISAACSON, P. G. (with Myhre, M. J.) 1987. Primary B-cell gastric lymphoma - a reassessment of its histogenesis, *J. Path.*, vol. 152, 1-11.

KATZ, D. R., ROCK, G. A. W. (with Mukherjee, S.) 1986. Differing role of dendritic cells and macrophages in the induction of delayed type hyper-sensitivity response to PPD. *Immunol.*, vol. 59, 229.

KATZ, D. R. (with Mukherjee, S., Macey, J., Miller, K.) 1987. Vitamin A acetate as a regulator of accessory cell function in delayed-type hypersensitivity responses. *Int. Arch. All. Appl. Imm.*, vol. 82, 53.

LEATHAM, A. J., BROOKS, S. 1987. Predictive value of lectin binding on breast cancer recurrence and survival. *Lancet,* vol. i, 1054-1056.

LUCAS, S. B. (with Hutt, M. S. R.) 1986. Tropical pathology of the female genital tract and ovaries. In *Haines & Taylor's Gynaecological Pathology,* 906-927. H. Fox (editor). (Edinburgh: Churchill Livingstone).

LUCAS, S. B. (and others) 1986. The schistosome egg granuloma: immunopathology in the cause of host protection or parasite survival? *Trans. Royal Society of Tropical Medicine & Hygiene,* vol. 80, 503-514.

LUCAS, S. B. (and others) 1986. Aflatoxins in the livers of children with kwashiorkor in Ghana. *Tropical and Geographical Medicine,* vol. 38, 273-276.

LUCAS, S. B. (and others) 1987. Chronic splenomegaly in Nairobi, Kenya. I. Epidemiology, malarial antibody and immunoglobulin levels. *Trans. Royal Society of Tropical Medicine and Hygiene,* vol. 81, 100-107.

LUCAS, S. B. (and others) 1987. Chronic splenomegaly in Nairobi, Kenya. II. Portal hypertension. *Ibid.,* 107-1111.

LUCAS, S. B. (and others) 1987. Enteropathic AIDS in Uganda: a clinico-pathological study. *AIDS,* vol. 1, 9-13.

LUCAS, S. B. 1987. Africa's AIDS problem. *Br. Med. J.,* vol. 295, 49.

McPHAIL, G. D., FINN, T., ISAACSON, P. G. 1987. A useful low temperature method for post-embedding electron immunocytochemistry in routine histopathology. *J. Pathol.,* vol. 151, 231-238.

MICHAELS, L. 1987. Ear, Nose and Throat Histopathology. (London: Springer).

MICHAELS, L. 1987. Epidemiology and pathology. In *Head and neck oncology,* 19-26. H. J. Bloom, I. W. F. Hanham and H. J. Shaw (editors). (New York: Raven Press).

MICHAELS, L. 1987. Histopathology of the middle ear in the newborn. In *Acute and secretory otitis media. Proc. of the Int. Conf. on Acute and Secretory Otitis Media.* (Part 1). (Amsterdam: Kugler Publications).

MICHAELS, L. 1986. An epidermod formation in the developing middle ear: possible source of cholesteatoma. *J. Otolaryngology,* vol. 15, 169-174.

NORTON, A. J., ISAACSON, P. G. 1986. Immunocytochemical study of T-cell lymphomas using monoclonal and polyclonal antibodies effective in routinely fixed wax embedded tissues. *Histopath.,* vol. 10, 1243-1260.

NORTON, A. J., ISAACSON, P. G. 1987. The diagnosis of malignant lymphoma using monoclonal antibodies reactive in routinely fixed wax embedded tissue. *J. Pathol.,* vol. 151, 183-184.

NORTON, A. J., ISAACSON, P. G. 1987. The immunocytochemical diagnosis of malignant lymphoma in routinely processed tissue. *Ibid.,* 240-242.

NORTON, A. J., ISAACSON, P. G. (with Thomas, J. A.) 1987. Cytokeratin specific monoclonal antibodies are reactive with tumours of smooth muscle derivation. An immunocytochemical and biochemical study. *Histopath.,* vol. 11, 487-499.

NUNN, J. D., KATZ, D. R., O'RIORDAN, J. L. H. (with Barker, S., Fraher, L. J., Hendy, D., Hewinson, M.) 1986. Regulation of human tonsillar T cell proliferation by the active metabolite of vitamin D3. *Immunol.,* vol. 59, 479.

PITTILO, M., ROWLES, P. M., WOOLF, N. (and others) 1987. Hereditary hyperlipidemia in the rabbit due to overproduction of lipoproteins. I. Biochemical studies. *Arteriosclerosis,* vol. 7, no. 2, 105-112.

RAMSAY, A. D. (and others) 1986. Case Report: resuscitative laser photoresection of a tracheal tumour before elective surgery. *Thorax,* vol. 41, 812-813.

RAMSAY, A. D., SMITH, W. J., ISAACSON, P. G. (with Earl, H. M., Southami, R. L.) 1987. T cell lymphomas in adults: a clinicopathological study of eighteen cases. *J. Pathol.,* vol. 152, 63-76.

RODE, J. (with others) 1986. Measuring of S100 and neurone specific enolase in melanocytic tumours by video image analysis. *J. Clin. Path.,* vol. 39, 1096-1098.

RODE, J. (with others) 1986. Duodenal gangliocytic paraganglioma: a study of 10 cases using immunocytochemical neuroendocrine markers. *Human Pathol.,* vol. 17, 1150-1157.

RODE, J. (with others) 1986. Endocrine differentiation of extra-pulmonary small cell carcinoma demonstrated by immunohistochemistry using antibodies to PGP9.5, neuron-specific enolase and the c-flanking peptide of human pro-bombesin. *J. Pathol.,* vol. 150, 151-162.

RODE, J. (with Russell, R. C. G., Cheslyn-Curtis, S., Dhillon, A. P.) 1986. Granular cell tumour of the common bile duct. *Postgrad. Med. J.,* vol. 62, 961-963.

RODE, J. (with others) 1987. Expression of the c-terminal flanking peptide of human pro-gastrin in human gastroduodenal mucosa, G-cell hyperplasia and islet cell tumours producing gastrin. *Molecular and Cellular Probes,* vol. 1, 95-108.

RODE, J., COTTON, P. B., WOOLF, A., O'RIORDAN, J. L. H. (with Dhillon, A. P.) 1987. Carcinoid tumour of the stomach and primary hyperparathyroidism. A new association. *J. Clin. Path.,* vol. 40, 546-551.

SEDDON, A. M., WOOLF, N. A., PITTILO, M., ROWLES, P. M. (with Turner, P. R., Lewis, B., La Ville, A.) 1987. Hereditary hyperlipidaemia in the rabbit due to over production of lipoproteins. II. Preliminary report of arterial pathology. *Arteriosclerosis,* vol. 7, no. 2, 113-124.

SOUCEK, S., MICHAELS, L., FROHLICH, A. 1986. Evidence for hair cell degeneration as the primary lesion in hearing loss of the elderly. *J. Otolaryngology,* vol. 15, 175-183.

SOUCEK, S., MICHAELS, L., FROHLICH, A. 1987. Pathological changes in the organ of Corti in presbyacusis as revealed by microslicing and staining. *Acta Otolaryngol. (Stockh),* suppl. 93-101.

SMITH, W. J. (with Tunnecliffe, A., Rabitts, T. H.) 1987. Germline sequence of two human T cell receptor vß genes. *Nucleic Acids Research,* vol. 15, 4991.

SPENCER, J., ISAACSON, P. G. (with Dillon, S. B., MacDonald, T. T.) 1986. T cell subclasses in fetal human ileum. *Clin. exp Immunol.,* vol.65, 553-558.

SPENCER, J., FINN, T., ISAACSON, P. G. 1986. A comparative study of the gut associated lymphoid tissue of primates and rodents. *Virchows Arch. B.,* vol. 51, 509-519.

SPENCER, J., ISAACSON, P. G. (with MacDonald, T. T.) 1987 Heterogeneity of non-lymphoid cells expressing HLA-D region antigens in human fetal gut. *Clin. exp Immunol.,* vol. 67, 415-424.

WANG, H., BOXALL, J., HELLQUIST, H., MICHAELS, L. (with Proops, D.) 1986. Video time-lapse microscopy of human laryngeal carcinoma *in vitro. Clin. Otolaryngol.,* vol. 11, 337-344.

WOOLF, N. 1987. The pathology of atherosclerosis with particular reference to the effects of hyperlipidemia. *European Heart Journal,* vol. 8, Suppl. H.

MEDICAL MICROBIOLGY

ANDERSON, M. J. (with West, N. C., Meigh, R. E.) 1986. Parvovirus infection associated with aplastic crisis in a patient with HEMPAS. *J. Clin. Pathol.*, vol. 39, 1019-1020.

ANDERSON, M. J. (with Nokes, D. J., Anderson R. M.) 1986. Rubella epidemiology in South East England *J. Hyg.*, vol. 96, 291-304.

ANDERSON, M. J. (with Brownell, A. I., McSwiggan, D. A., Cubitt, D. W. D.) 1986. Aplastic and hypoplastic episodes in sickle cell disease and thalassaemia intermedia. *J. Clin. Pathol.*, vol. 39, 121-124.

ANDERSON, M. J., PATTISON, J. R. (with Young, N. S.) 1986. Pathogenesis of parvovirus-induced disease in humans. In *Concept in Viral Pathogenesis II,* 261-268. A. L. Notkins and M. A. Oldstone (editors). (New York: Springer-Verlag).

FELMINGHAM, D., O'HARE, M. D., ROBBINS, M. J., RIDGWAY, G. L., GRUNEBERG, R. N. 1986. In vitro evaluation of two new 4-quinolones: S25930 and S25932. *Recent Advances in Chemotherpy,* vol. 2, 1521-1522.

FELMINGHAM, D., RIDGWAY, G. L., GRUNEBERG, R. N. 1986. Resistance studies with two new 4-quinolones: S25930 and S25932. *Ibid.*, 1523-1524.

FELMINGHAM, D., WILLIAMS, A. H., CREMER, A. W., RIDGWAY, G. L., GRUNEBERG, R. N. 1986. Treatment of Gram-positive bacterial infections with teicoplanin: laboratory aspects. *Recent Advances in Chemotherapy,* vol. 3, 1901-1902.

FORSEY, T., STANSBY, K., HOGER, P. H., RIDGWAY, G. L., DAROUGER, S., FISCHER-BRUGGE, U. 1986. Comparison of two immunofluorescence tests for detecting antibodes to *C. trachomatis. European J. Epidemiology,* vol. 2, 163-164.

HO-TERRY, L., LONDESBOROUGH, P., COHEN, A. 1986. Analysis of rubella virus complement-fixing antigens by polyacylmanide gel electrophosesis. *Archives of Virology,* vol. 87, 219-228.

HO-TERRY, L., TERRY, G. M., COHEN, A. LONDESBOROUGH, P. 1986. Immunological characterisation of rubella El glycoprotein. *Archives of Virology,* vol. 90, 145-152.

RIDGWAY, G. L. 1986. Chlamydial infections in man. *Postgraduate Medical Journal,* vol. 62, 249-253.

RIDGWAY, G. L. 1986. A fresh look at Ophthalmia Neonatorum. *Trans. Ophthalmological Society U.K.*, vol. 105, 41-42.

RIDGWAY, G. L. 1986. The *in vitro* activity of macrolides *Chlamydia trachomatis* and the genital mycoplasmas. In *Macrolides. A review with an oulook on future developments,* 69-73. J. P. Butzler (editor). (Amsterdam: Excerpta Medica).

RIDGWAY, G. L. (with Oriel, J. D., Schachter, J., Taylor-Robinson, Ward, M.) (editors). 1987. *Chlamydial Infections.* (C.V.P).

RIDGWAY, G. L. 1986. The laboratory diagnosis of Chlamdial Infection. *Ibid.*, 539-549.

RIDGWAY, G. L. 1986. Human Chlamydial Infection. In *Advanced Medicine 22,* 187-192. D. R. Trigger (editor). (London: Baillere Tindall).

TERRY, G. M., HO-TERRY, L., WANER, R. C., RODECK, C. H., COHEN, A., REES, K. R. 1986. First trimester prenatal diagnosis of confluital rubella: a laboratory investigation. *Br. Med. J.*, vol. 292, 930-933.

WILLIAMS, A. H., GRUNEBERG, R. N., WEBSTER, A., RIDGWAY, G. L. 1986. Teicoplanin in the treatment of infection caused by Gram-positive organisms. *J. Hospital Infection,* Suppl. A, 101-103.

MEDICAL PHYSICS

ALDRIDGE, R., CADY, E. B. (with Jones, D., Obletter, G.) 1986. Muscle pain after exercise is linked with an inorganic phosphate increase as shown by 31-P NMR. *Bioscience Reports,* vol. 6, 663-667.

ARRIDGE, S. R., COPE, M., VAN DER ZEE, P., HILLSON, P. J., DELPY, D. T. 1986. Near infra red transillumination as a method of visualisation and measurement of the oxygenation state of brain and muscle in newborn infant. In *Recent Developments in Medical and Physiological Imaging,* 24-31. R. P. Clark and M. R. Goth (editors). (Chichester: Taylor & Francis).

BLACKWELL R. J. 1987. Practical issues in minimising ultrasound exposure. In *Obstetric and Neo-natal Blood Flow,* 8-11. C. H. Sheldon, D. H. Evans and J. R. Savage (editors). (London: Biological Engineering Society).

CADY, E. B. (with others) 1986. Artefactual variation in rat skeletal muscle [ATP] with fasting and insulin treatment: biochemical and NMR studies. *Abstr. Phys. Soc.*, 62.

CADY, E. B. (with others) 1986. Neurometabolic effects of an inborn error of amino acid metabolism demonstrated in vivo by 1-H NMR. *Magn. Res. in Med.*, vol. 13, 150-156.

CADY, E. B. (with others) 1986. Bilirubin neurotoxicity: an in vivo 31-P NR spectroscopy study in the Gunn rat. *Proc. V. Ann. Meeting Soc. Mag. Res. in Med.*, vol. 2, 689.

CADY, E. B., DELPY, D. T. (with others) 1986. Changes in 31-P metabolic concentrations and pHi's with increasing gestational maturation of the brain in normal and growth retarded infants. *Ibid.*, 295-296.

CADY, E. B., DELPY, D. T. (with others) 1986. Deranged energy metabolism in the brains of newborn infants with increased echodensities on ultrasound scan. *Ibid.*, 299-300.

CADY, E. B., DELPY, D. T. (with others) 1987. Brain intracellular pH and metabolism during hypercapnia in the new-born lamb. *J. Physiol.*, vol. 382, 1-14.

CADY, E. B., WILKIE, D.R. 1986. Estimation of cerebral intracellular pH by 31-P and 1-H NMR spectroscopy. In *Neonatal Physiological Measurements,* 373-381. P. Rolfe (editor). (London: Butterworth).

CONWAY, M. J. (with others) 1986. Prediction by brainstem auditory evoked potentials in very preterm infants of hearing status at 1 year of age. In *Neonatal Physiological Measurements,* 185-186. P. Rolfe (editor). (London: Butterworth).

CONWAY, M. J. (with Rothera, M., Brightwell, A., Graham, J.) 1986. Evaluation of patients for cochlear implant by promontary stimulation. *Br. J. Auiology,* no. 20, 25,28.

COPE, M., DELPY, D. T. (with Reynolds, E. O. R., Wray, S., Wyatt, J. S.) 1986. In vivo determination of changes in cerebral haemoglobin and cytochrome aa3 oxygenation in rats by near infra red transmission spectrophotometry. *J. Physiol.*, vol. 38, 15P.

COPE, M., DELPY, D. T. (with Wyatt, J. S., Wray, S., Reynolds, E. O. R.) 1986. Quantitation of cerebral oxygenation and haemodynamics in sick newborn infants by near infra red spectrophotometry. *Lancet,* 8515, 1063-1066.

COPE, M., DELPY, D. T. (with Wyatt, J. S., Wray, S., Reynolds, E. O. R.) 1986. Continuous non-invasive monitoring of cerebral oxygenation in sick newborn infants by near infra red spectrometry. *Proc. Europ. Soc. Paed. Rsch. Groningen., September 1986,* 37.

COPE, M., DELPY, D. T. (with Wyatt, J. S., Wray, S., Reynolds, E. O. R.) 1987. Near infrared monitoring of cerebral oxygenation in neonates. *HPA Neonatal Monitoring, Sheffield, 29 April 1987.*

DELPY, D. T. 1987. Cerebral monitoring in neonates by NIR and NMR spectroscopy. In *Proc. IFCC Workshop on new trends in blood gases, acids and bases and related quantities in critically ill patients, Copenhagen, 3-4th December 1986.*

DELPY, D. T., THALAYASINGHAM, S. (with Chu, A.) 1986. A transport and life support system for newborn infants during NMR spectroscopy. In *Neonatal Physiological Measurements,* 409-415. P Rolfe (editor). (London: Butterworth).

DELPY, D. T. (with Parker, D., Halsall, D. N.) 1986. In line monitoring of carbon dioxide via a gas permeable window. In *Oxygen Transport to Tissue,* vol. VII, 73-78. I. S. Longmuir (editor). (New York: Plenum Press).

GARDENER, J. E. (with Marsh, R. J., Cusick, G.) 1986. Real-Time scanners: tissue characterisation or machine characterisation? In *Physics in Medical Ultrasound,* 165-172. J. A. Evans (editor). (London: Institute of Physical Sciences in Medicine).

MILLS, T. N. (with Coleridge-Smith, P. D., Bown, S. G., Tralau, C. J.) 1986. Blood-flow measurements during photodynamic therapy of tumours using a metallo-phthalocyanine photosensitizer. *Ibid.,* 303.

MILLS, T. N. (with Cross, F. W., Bown, S. G.) 1987. Pulsed Nd:YAG laser effects on normal and atheromatous aorta in vitro. *Lasers in the Life Sciences,* vol. 1, 193-211.

MILLS, T. N. (with Sandeman, D. R., Bown, S. G.) 1986. Enhancement of light penetration by white matter tracts in the normal mouse brain. *Ibid.,* no. 4, 302.

MOSSE, C. A., ROBERTS, S. P. 1987. Microprocessor-based time-of-flight respirometer. *Med. Biol. Eng. & Comp.,* vol. 25, 34-40.

OSTRO, P. T., CUSICK, G., BLACKWELL, R. J. (with others) 1986. Continuous recording and analysis of cardiorespiratory variables in ill preterm infants. In *Neonatal Physiological Measurements,* 313-319. P. Rolfe (editor). (London: Butterworth).

PLUMMER, D. L. (with others) 1987. Brains - a computer advisor system to aid in CT scan interpretation and cerebral disease diagnosis. *Neuroradiology,* no. 29, 196-199.

TODD-POKROPEK, A. E. 1986. Nonstationary deconvolution as an aid to correcting for the partial volume effect in tomography. *Radiology,* vol. 161P, 70.

TODD-POKROPEK, A. E. (with Gordon, I., Jaszczak, R. J., Tsui, B. M. W.) 1987. Estimating MR performance on different systems, design of a suitable phantom. *Ibid.,* 281.

TODD-POKROPEK, A. E. (with Tsui, B. M. W., Jaszczak, R. J., Jaszczak, N. J.) 1987. MR imaging system evaluation and quality assurance using a new phantom set. *Ibid.,* 281.

TODD-POKROPEK, A. E. (with others) 1987. Quantitation of renal DMSA uptake in children. *Nucl. Med. Comm.,* no. 8, 242.

TODD-POKROPEK, A. E. 1987. Model driven deconvolution of temporal functions. *Ibid.,* 286.

TODD-POKROPEK, A. E. 1987. Non-stationary scatter and PSF correction in tomography. *Ibid.,* 299.

TODD-POKROPEK, A. E. 1987. The elimination of nonstationary effects as part of attenuation, scatter and PSF correction in tomography. *J. Nucl. Med.,* no. 28, 660-661.

TODD-POKROPEK, A. E. (with Appledorn, C. R.) 1987. Error free data compression methods applicable to PACS. *Ibid.*, 652.

TODD-POKROPEK, A. E. (with Peters, A. M., Gordon, I., Evans, K.) 1987. Quantitation of intracavular (IV) and extravascular (EV) background (BG) in DTPA renography. *Nucl. Med. Comm.*, no. 288.

TODD-POKROPEK, A. E. (with others) 1987. The mechanism of hyperuricaemia in cyclosporine-treated renal transplant recipients. *Transplantation Proc.*, no. XIX, 1829-1830.

TODD-POKROPEK, A. E. (with others) 1986. Scatter correction technique in SPECT. *Proc. Eur. Nuclear Med.*

TODD-POKROPEK, A. E. 1987. Medical imaging: from linear image processing to morphological pattern recognition. C.E.S.T.A., *Proc. of MARI 87,* Book A19.

TOFTS, P. S. (with others) 1986. Quantitative NMR imaging: characteristics of experimental cerebral oedema. *J. Neurol. Neurosurg. Psychiatry,* vol. 49, 1341-1347.

TOFTS, P. S. (with others) 1987. Accuracy and precision in the measurement of relaxation times in NMR imaging. *Br. J. Radiol.*, vol. 60, 143-153.

TOFTS, P. S. (with others) 1987. NMR imaging of experimental cerebral oedema. *J. Neurol. Neurosurg. Psychiatry,* vol. 50, 125-133.

TOFTS, P. S. (with others) 1987. Measurement of NMR relaxation times using the minimum number of scans. *Acta Radiologica supplement,* vol. 369, 496-499.

TOFTS, P. S. (with others) 1987. The NMR signal decay characterisitcs of cerebral oedema. *Ibid.*, 503-506.

TOFTS, P. S., DELPY, D. (with others) 1987. ^{19}F imaging of cerebral intracellular PO_2 in the cat. *Proc. Europ. Workshop on Mag. Res. in Med.*, 25-25th March, UCL, London.

TOFTS, P. S., WALLER, M. L. 1987. Edited 31-P brain spectra using Maximum Entropy data processing. *Magn. Res. Med.*, vol. 4, 385-392.

MEDICINE

ABDULWAHID, N. A., JACOBS, H. S. (with Armar, N. A., Morris, D. V.) 1987. Induction of fertility in patients with organic hypothalamic-pituitary disease: response to treatment with LHRH. *Fertility and Sterility,* vol. 47, 54-59.

BARKER, S., KARMALI, R., O'RIORDAN, J. L. H. (and others) 1986. Vitamin D3, gamma interferon and control of proliferation of mycobacterium tuberculosis by human monocytes. *Immunology,* vol. 57, no. 1, 159-163.

BARKER, S., HEWISON, M., O'RIORDAN, J. L. H. (and others) 1986. Regulation of human tonillar T-cell proliferation by the active metabolite of vitamin D3. *Clinical and Experimental Immunology,* vol. 59, 479-484.

BARKER, S., KARMALI, R., O'RIORDAN, J. (and others) 1986. Vitamin D3 gamma interferon and control proliferation of Mycobacterium tuberculosis by human monocytes. *Immunology,* vol. 57, 159-163.

BETTERIDGE, D. J. 1986. Platelets and diabetes mellitus. In *Diabetes and the Heart,* 79-117. K. G. Taylor (editor). (Tunbridge Wells: Castle Home Publications).

BETTERIDGE, D. J. 1987. Lipids and thrombosis. In *Cholesterol Control and Cardiovascular Disease: prevention and therapy. Milan, Fondazione Giovanni Lorenzini.*

BETTERIDGE, D. J. 1987. Nutrition and platelet function in atherogenesis. *Proc. Nut. Soc.*, vol. 46, 15-29.

BETTERIDGE, D. J. 1987. Reactive hypoglycaemia. *Br. Med. J.*, vol. 285, 286-287.

BIHARI, D., SEMPLE, S. J. G. (Editors) 1987. Critical Care Medicine. *Medicine International*, February.

BIHARI, D. (with Gimson, A., Williams, R.) 1986. Disturbance in cardiovascular and pulmonary function in fulminant hepatic failure. In *Liver Failure* (Clinics in Crit. Care Med.), 47-71. R. Williams (editor). (Edinburgh: Churchill Livingstone).

BIHARI, D. 1987. The prevention of multiple organ failure in the critically ill. In *Update in Intensive Care and Emergency Medicine*, vol. 3. J. L. Vincent (editor). (Berlin: Springer-Verlag).

BIHARI, D. (with Williams, R.) 1986. Oxygen transport in fulminant hepatic failure - an analysis of 50 cases. *Crit. Care Med.*, vol. 14, 344.

BIHARI, D. (with Smithies, M., Tinker, J.) 1986. Unrecognised tissue hypoxia in the critically ill: its relation to survival. *Ibid.*, 349.

BIHARI, D. (with Smithies, M., Catling, J., Tinker, J.) 1986. Intensive Therapy in the elderly patient. *Ibid.*, 397.

BIHARI, D. (with Wendon, J., Tinker, J.) 1986. Continuous high volume venous-venous haemofiltration in the management of acute renal failure. *Ibid.*, 34.

BIHARI, D. (with Ede, R., Gimson, A., Williams, R.) 1986. Controlled hyperventilation in the management of cerebral oedema in fulminant hepatic failure. *J. Hepatol.*, vol. 2, 43-51.

BIHARI, D. (with Smithies, M., Gimson, A.) 1986. Septicaemic shock and the pathogenesis of multiple organ failure. *Current Clinical Concepts*, vol. 3, 49-60.

BIHARI, D. (and others) 1986. Fibronectin replacement in patients with fulminant hapatic failure. *Eur. J. Clin. Invest.*, vol. 16, 352-356.

BIHARI, D. (with Smithies, M., Pozniak, A., Gimson, A.) 1987. A comparison of direct and indirect measurements of oxygen delivery and consumption: the effects of prostacyclin in two human volunteers. *Scand. J. Clin. Lab. Invest.*, vol. 47, suppl. 188, 37-45.

BIHARI, D. (with Garlick, R.) 1987. The use of intermittent and continuous recordings of jugular venous bulb oxygen saturation in the unconscious patient. *Ibid.*, 47-52.

BIHARI, D. (with Gimson, A., Williams, R.) 1986. Haemodynamic pulmonary and renal complications of fulminant hepatic failure. *Seminars in Liver Disease*, vol. 6, 119-128.

BIHARI, D. 1986. Acute liver failure - the ultimate cause of multiple organ systems failure. *Intensive and Critical Care Digest*, vol. 5, 39-41.

BIHARI, D., SEMPLE, S. J. G. 1987. Multiple organ failure. *Medicine International*, vol. 2, 1586-1590.

BIHARI, D. 1987. Indomethacin and arterial oxygenation in critically ill patients with severe bacterial pneumonia. *Lancet*, i, 755.

BROOK, C. G. D. (with Stanhope, R.) 1986. The induction of puberty using low dose pusatile gonadotrophin releasing hormone in therapeutic application of LHRH. In *Royal Society of Medicine Symposium 105*, 33-38. S. R. Bloom and H. S. Jacobs (editors).

BROOK, C. G. D. (with Stanhope, R., Milroy, E. J. G.) 1986. Steroid 5 alpha reductase deficiency and posterior urethal valve. *Hormone Research*, vol. 23, 213.214.

BROOK, C. G. D., SMITH, P. (and others) 1986. Physiological and clinical studies of GRF and GH. *Recent Progress in Hormone Research,* vol. 42, 589-640.

BROOK, C. G. D. 1986. Turner syndrome. *Archives of Disease in Childhood,* vol. 61, 305-309.

BROOK, C. G. D. (wth Taylor, B. J.) 1986. Sleep EEG in growth disorders. *Ibid.,* 754-760.

BROOK, C. G. D., HINDMARSH, P. C., SMITH, P. J. (with Semple, R.) 1986. Clinical features and investigation of growth hormone deficiency. *Clinics in Endocrinology and Metabolism,* vol. 15, 479-493.

BROOK, C. G. D., HINDMARSH, P. C. (with Healy, M. J. R.) 1986. A better way to detect growth failure. *Br. Med. J.,* vol. 293, 1186.

BROOK, C. G. D., HINDMARSH, P. (with Stanhope, R., Adams, J.) 1986. The control of the onset of puberty. *Acta Endocrinologica Supplementum,* vol. 279, 202-206.

BROOK, C. G. D. (with Stanhope, R.) 1986. Clinical diagnosis of disorders of puberty. *Br. J. Hospital Medicine,* vol. 35, no. 1, 57-58.

BROOK, C. G. D., JACOBS, H. S., HINDMARSH, P. (with Stanhope, R., Adams, J.) 1987. Pulsatility of reproductive hormones - applications to the understanding of puberty and to the treatment of infertility. *Clinical Endocrinology and Metabolism,* vol. 1, 23-41.

CONWAY, G. (with Woolf, A. S.) 1987. Systemic Lupus Erthematosus and primary cerebral lymphoma. *Postgraduate Medical Journal,* vol. 63, 569-571.

COOPER, M. B., BETTERIDGE, D. J., FORTE, C. A., JONES, D. A., SMITH, C. C. T. 1986. Carnitine in human platelets. *IRCS Med. Sci.,* vol. 14, 924-925.

COOPER, M. B., BETTERIDGE, D. J., FORTE, C. A., JONES, D. A., WILSON, A. P., SMITH, C. C. T. 1987. Thrombin stimulation of platelet carnitine metabolism. *Med. Sci. Res.,* vol. 15, 647-648.

COOPER, M. B., FORTE, C. A., JONES, D. A. 1986. Citrate interference with the determination of acetylcarnitine: a method for its elimination. *Clin. Chim. Acta.,* vol. 159, 291-299.

COOPER, M. B., FORTE, C. A., ROUND, J. M., JONES, D. A. (with Johnson, R. D., Hughes, D., Williams, R.) 1987. Plasma carnitine and alcohol induced liver damage. *Med. Sci. Res.,* vol. 15, 671-673.

COOPER, M. B., JONES, D. A. (and others) 1986. The effect of marathon running on carnitine metabolism and on some aspects of muscle mitochondrial activities and antioxidant mechanism. *J. Sports Sci.,* vol. 4, 79-87.

COOPER, M. B., SMITH, C. C. T., WILSON, A. P., CURTIS, L. D., FORTE, C. A., JONES, D. A., BETTERIDGE, D. J. 1987. Platelet carnitine and its metabolism in normal subjects and insulin dependent diabetes. *Eur. J. Clin. Invest.,* vol. 17, A22.

COOPER, M. B., SMITH, C. C. T., FORTE, C. A., JONES, D. A., WILSON, A. P., BETTERIDGE, D. J. 1987. Effect of thrombin stimulation on platelet carnitine and thiol turnover. *Clin. Sci.,* vol. 72, Suppl. 26, 22P.

CORCORAN, J. S., YUDKIN, J. S. 1987. Measurement of fingertip blood flow using a thermal clearance technique reflects anastomotic rather than nutrient blood flow. *Clin. Sci.,* vol. 72, 225-232.

CORCORAN, J. S., PERKINS, J. E., HOFFBRAND, B. I., YUDKIN, J. S. 1987. Treating hypertension in non-insulin-dependent diabetes: a comparison of atenolol, nifedipine, and captopril combined with bendrofluazide. *Diabetic Medicine,* vol. 4, 164-168.

CORCORAN, J. S., YUDKIN, J. S. 1987. Loss of spontaneous variability in fingertip anastomotic blood flow in diabetic autonomic neuropathy. *Clinical Science,* vol. 72, 557-562.

CROSS, B. A. 1987. The relationship between oscillations of arterial PCO_2 and the activity recorded from few or multi-fibre chemoreceptor preparations of the carotid sinus nerve. In *Concepts and Formalizations in the Control of Breathing,* 39-46. G. Benchetnk, P. Baconnier and J. Demongeot (editors). (Manchester University Press).

CROSS, B. A., LEAVER, K. D., SEMPLE, S. J. G., STIDWILL, R. P. 1986. The effect of small changes in arterial carbon dioxide tension on carotid chemoreceptor activity in the cat. *J. Physiol.,* vol. 380, 415-427.

CROSS, B. A. (with Forsling, M. L.) 1986. The time course of the vasopressin response to hypercepnic acidosis in mechanically ventilated dogs. *J. Physiol.,* vol. 382, 59P.

CROSS, B. A., STIDWILL, R. P., LEAVER, K. D., SEMPLE, S. J. G. 1987. Derivation of CO_2 output from oscillations in arterial pH. *J. Appl. Physiol.,* vol. 62, 880-891.

CURTIS, L. D., BETTERIDGE, D. J. (and others) 1987. Glycaemic control in diabetic patients transferred from therapy with animal insulins to human crystalline zinc insulin of recombinant DNA origin: a multicentre study. *Diabetes Res.,* vol. 4, 1-4.

DORNHORST, A. C. 1986. Pulsus paradoxus. *Intensive Care Medicine,* vol. 12, no. 6, 387-388.

DORNHORST, A. C. 1987. Analysis of cell survival data. *Brit. J. Haematol,* vol. 65, 117.

EDMONDS, C. J. (with Law, A., Jack, G. W., Tellez, M.) 1986. In-vivo studies of a human thyrotrophin preparation. *J. Endocrinology,* vol. 110, 375-378.

EDMONDS, C. J. (with MacKenzie, J.) 1987. Effects of aldosterone on sodium transport by colonic epithelium. (Abstract). *J. Physiology,* vol. 384, 27P.

EDMONDS, C. J. (with MacKenzie, J.) 1987. Sodium transport and the cellular sodium transport pool of colonic epithelium: effects of sodium loading, aldosterone and lithium. *J. Endocrinology,* vol. 112, 247-252.

EDMONDS, C. J. 1986. Review: thyroid problems in general practice. *General Practitioner,* 26th September, 27-36.

ESHEL, A., JACOBS, H. S. (with Armar, N. A., Tan, S. L., Adams, J., Sutherland, I. A.) 1987. Practical aspects of pulsatile LHRH therapy. *Br. J. of Hospital Medicine,* vol. 37, 429-436.

FARROW, S. M., O'RIORDAN, J. L. H. (with Brookman, J. J., Nicholson, L., HENDY, G. N.) 1986. Regulation by calcium of parathyroid hormone mRNA in culture parathyroid tissue. *J. Bone and Mineral Res.,* vol. 1, no. 6, 529-537.

FORREST, R. D., JACKSON, C. A., YUDKIN, J. S. 1986. Glucose intolerance and hypertension in North London. *Diabetic Medicine,* vol. 3, 338-342.

FORREST, R. D., JACKSON, C. A., CASBURN-BUDD, M., YUDKIN, J. S. (with Gould, B. J., Taylor, J. E.) 1987. Short-term effect of a 75g oral glucose load on glycohaemoglobin levels. *Annals of Clinical Biochemistry,* vol. 24, 53-57.

FORREST, R. D., JACKSON, C. A., YUDKIN, J. S. 1987. The glycohaemoglobin assay as a screening test for diabetes mellitus - a comparison with an abbreviated glucose tolerance test. *Diabetic Medicine,* vol. 4, 254-259.

FORREST, R. D., JACKSON, C. A., YUDKIN, J. S. 1987. Glucose tolerance and glycohaemoglobin; a population study of male-to-female ratios. *Ibid.,* 322-324.

FORREST, R. D., JACKSON, C. A., YUDKIN, J. S. 1987. Screening for diabetic retinopathy - comparison of a nurse and a doctor with retinal photography. *Diabetes Research,* vol. 5, 39-42.

FORREST, R. D., JACKSON, C. A., YUDKIN, J. S. 1987. The epidemiology of the haemoglobin level. A study of 1057 subjects in general practice. *Postgraduate Medical Journal,* vol. 63, 625-628.

GARCIA, R. C. (with Venge, P., Carlson, M.) 1987. A neutral protease isolated from secondary granules of normal human neutrophis. In *Pulmonary Emphysema and Proteolysis,* 263-270. (Los Angeles: Academic Press).

GARCIA, R. C., SEGAL, A. W. (with Cross, A. R.) 1986. The development of cytochrome ^{b}-245 in maturing human macrophages. *Biochem. J.,* vol. 239, 647-651.

GLEED, J. H., O'RIORDAN, J. L. H. (with Hendy, G. N., Nussbaum, M., Rosenblatt, M.) 1986. Development and application of a mid-region specific assay for human parathyroid hormone. *Clinical Endorinology,* vol. 24, 365-373.

GLEED, J. H., O'RIORDAN, J. L. H. (and others) 1986. Effects of decreasing serium calcium on circulating parathyroid horome and vitamin D metabolites in normocalcaemic and hypercalcaemic patients treated with AOD. *Bone and Mineral,* vol. 1, 69-78.

GRIFFITH, D. N. W., BETTERIDGE, D. J. (with Saimbi, S., Lewis, C., Tofree, S.) 1987. Abnormal cerebrovascular carbon dioxide reactivity in people with diabetes. *Diabetic Med.,* vol. 4, 217-220.

HAGUE, W. M., JACOBS, H. S. (with Tan, S. L., Adams, J.) 1987. Hypergonadotrophic amenorrhoea - aetiology and outcome in 93 young men. *International Journal of Obstetrics and Gynaecology,* vol. 25, 121-125.

HENDRA, T., YUDKIN, J. (with Trembath, R. C., Thomas, D. J., Galton, D. J.) 1986. DNA polymorphism of the AI-CIII gene cluster in diabetic coronary atherosclerosis. *Br. Diabetic Assoc. Autumn Meeting. Diabetic Medicine 3,* 566A.

HENDRA, T., OUGHTON, J., WAGER, J., YUDKIN, J. 1987. Do uncomplicated diabetics have hyperaggregable platelets? *Medical Research Society Winter Meeting. Clinical Science,* vol. 72, Suppl. 16, 72P.

HENDRA, T., OUGHTON, J., WAGER, J., YUDKIN, J. 1987. A comparison of platelet aggregation in whole blood and platelet rich plasma in diabetics and normals following exercise. *Ibid.,* 71P.

HENDRA, T., OUGHTON, J., WAGER, J., YUDKIN, J. 1987. A comparison of platelet hyperaggregability to exercise in healthy subjects using whole blood and platelet rich plasma techniques. *Medical Research Society Winter Meeting. Clinical Science,* vol. 73, Suppl. 17, 50P.

HENDRA, T. J., OUGHTON, J., SMITH, C. C. T., BETTERIDGE, D. J., YUDKIN, J. S. 1987. Changes in plasma catecholamines and platelet function in insulin-dependent diabetics following exercise. *Br. Diabetic Assoc. Spring Meeting. Diabetic Medicine,* vol. 4, 390.

HENDRA, T. J., YUDKIN, J. S. (with Trembath, R. C., Thomas, D. J. B., Galton, D. J.) 1987. A DNA polymorphism of the Apo AI-CIII-AIV gene cluster associated with coronary heart disease in non-insulin dependent diabetes. *Br. Med. J.,* vol. 294, 1577-1578.

HEYWORTH, P. G., SEGAL, A. W. 1987. Further evidence for the involvement of a phosphoprotein in the respiratory burst oxidase of human neutrophils. *Biochem. J.,* vol. 239, 723-731.

HEYWORTH, P. G. (with Hutchinson, W. L., Mowbray, J.) 1987. A comparison of rapid adenine nucleotide incorporation into phosphoglyceroyl-ATP and into RNA-like species in perfused rat heart. *Biochim, Biophys. Acta.,* vol. 927, 158-162.

HIND, C. R. K. 1986. *Amyloidosis and amyloid P component.* (Edinburgh: Churchill Livingstone). 79 pp.

HIND, C. R. K. (with Baltz, M. L., Pepys, M. B.) 1986. Amyloidosis. In *Multiple Myeloma and Other Paraproteinaemiias,* 234-262. I. W. Delamore (editor). (Edinburgh: Churchill Livingstone).

HIND, C. R. K. (with Pepys, M. B.) 1987. Acute phase proteins. In *The International Textbook of Allergy,* 237-253. M. H. Lesof, T. H. Lee and D. M. Kemery (editors). (Chichester: John Wiley).

HIND, C. R. K. (with Robertson, S.) 1987. Treatment of acute severe asthma. In *Anaesthesia Review 4,* 26-36. L. Kaufman (editor). (Edinburgh: Churchill Livingstone).

HIND, C. R. K., BIHARI, D. (and others) 1987. Circulating levels of leucocyte elastase and free radical activity in the adult respiratory distress syndrome: a preliminary study. *Clinical Science,* vol. 72, 83-84.

HIND, C. R. K., TREASURE, T. (and others) 1986. Plasma free radical activity during and after cardiopulmonary bypass. *Clinical Science,* vol. 15, Suppl. 15, 53P.

HIND, C. R. K., JOHNSON, N. McI. (and others) 1987. Serum C-reactive protein levels in patients with pulmonary sarcoidosis. *Thorax,* vol. 42, 332-335.

HIND, C. R. K. 1987. Pneumonia caused by Pneuocystis carinii and Chlamydia Psittaci. *Hospital Update,* vol. 13, 318-327.

HIND, C. R. K. 1987. Pneumonia caused by Mycoplasma pheumoniae and Legionella pneumophila. *Ibid.,* 394-404.

HINDMARSH, P. C., BROOK, C. G. D. (with Stanhope, R., Kendall, B. E.) 1986. A clinical endocrinological and radiological study. *Clinical Endocrinology,* vol. 25, 223-231.

HINDMARSH, P., BROOK, C. G. D. (with Stanhope, R., Kendall, B.) 1986. High resolution CT scanning of the pituitary gland in growth disorders. *Acta Paaediatrica Scandinavica,* vol. 75, 779-786.

HINDMARSH, P., BROOK, C. G. D. 1987. Short term management of nesidioblastosis using the somatostatin analogue SMS201-996. *New England Journal of Medicine,* vol. 316, 221-222.

HURWITZ, B.S., YUDKIN, J. S. (with Wilsher, D., Solomonides A. E.) 1987. A diabetic data base and prompting system to improve community care. *Br. Diabetic Assoc. Spring Meeting. Diabetic Medicine,* vol. 4, 357.

JACKSON, R. A., HAWA, M. I., SIM, B. M., DiSILVIO, L. (with Roshania, R. D.) 1986. Impact of glucose ingestion on hepatic and peripheral glucose metabolism in man: an analysis based on simultaneous use of the forearm and double isotope techniques. *J. Clinical Endocrinology and Metabolism,* vol. 63, 541-549.

JACKSON, R. A., SIM, B. M., HAWA, M. I., NABARRO, J. D. N. (and others) 1986. The influence of Graded Hyperglycaemia with and without Physiological Hyperinsulinaemia on Forearm Glucose Uptake and other Metabolic Responses in Man. *Metabolism,* vol. 36, 594-604.

JACKSON, R. A., SIM, B. M., NABARRO, J. D. N. (and others) 1987. Basal Glucose Homeostasis with and without fixed Concentrates of Glucagon and Insulin. *Ibid.,* 131-136.

JACKSON, R. A., SIM, B. M., HAWA, M. I., NABARRO, J. D. N. (with Hamling, J. B., Blix, P. M.) 1987. Peripheral Lactate and Oxygen Metabolism in man: the Influence of Oral Glucose Loading, *Ibid.,* 144-150.

JACKSON, R. A., HAWA, M. I., SIM, B. M., DiSILVIO, L., KURTZ, A. B. (with Jaspan, J. B., Featherbe, D.) 1987. Mechanism of metformin action in non-insulin-dependent diabetes. *Diabetes*, vol. 36, 632-640.

JACOBS, H. S. 1986. Use of LHRH in the management of infertility. In *Central mechanisms and gonadal function in infertility. Proc. Sandoz Satellite Symposium XII World Congress on Fertility and Sterility, Singapore, 26-31 October 1986.* G. M. Besser (editor). 16-27.

JACOBS, H. S., ESHEL, A. (with Porter, R. N., Craft, I.) 1987. Profertility uses of LHRH analogues. In *LHRH and its analogues: contraceptive and therapeutic applications, Part two,* 303-322. Brian H. Vickery and John J. Nestor (editors). (Lancaster: MTP Press).

JACOBS, H. S. 197. The care of patients with past and present amenorrhoea. The Jennifer Hallam Memorial Lecture. *Br. J. Family Planning,* vol. 12, 2-5.

JACOBS, H. S. (with others) 1986. The use of unlabelled steroid infusions to investigate the origin of estrone sulphate in postmenopausal women. *Hormone and Metabolic Research,* vol. 18, 779-783.

JACOBS, H. S. (with Tan, S. L.) 1986. Management of prolactinomas - 1986. *Br. J. Obstetrics and Gynaecology,* vol. 93, 1025-1030.

JACOBS, H. S. (and others) 1987. Amenorrhoea in cystic fibrosis. *Clinical Endocrinology,* vol. 26, 187-195.

JACOBS, H. S. 1987. Polycystic ovaries and polycystic ovary syndrome. *Gynaecological Endocrinology,* vol. 1, 117-135.

JACOBS, H. S., NABARRO, J. D. N. (with Rodrigues, E. A., Caruana, M. P., Lahiri, A.) 1987. Cardiac in Patients with Acromegaly and Hypertension. *Clin. Sci.,* vol. 72, Suppl. 16, 8P, no. 22.

JOHNSON, N. McI. (and others) 1986.Bronchoalveolar mast cells in intrinsic asthma. *Clin. Sci.,* vol. 70, suppl. 13, 46P.

JOHNSON, N. McI. (and others) 1986. Relative lack inhibition of immune (gamma) interferon production by 1,25(OH)2 D3 from bronchoalveolar cells in sarcoidosis. *Sarcoidosis,* vol. 3, 155.

JOHNSON, N. McI. (and others) 1986. Some properties of mast cells obtained by human bronchoalveolar lavage. *Agents and Actions,* vol. 18, 110-113.

JOHNSON, N. McI. (and others) 1986. Bronchoalveolar mast cell in sarcoidosis: increased numbers and accentuation of mediator release. *Thorax,* vol. 41, 94-99.

JOHNSON, N. McI. (with Flint, K.) 1986. Intrathoracic sarcoidosis. *Seminars in Respiratory Medicine,* vol. 8, 41-51.

JOHNSON, N. McI. (and others) 1986. A comparison of nedocromil sodium and sodium cromoglycate on human lung mast cells obtained by bronchoalveolar lavage and by dispersion of lung fragments. *Eur. J. Respir. Dis.,* vol. 69, suppl. 147, 223-226.

JOHNSON, N. McI. (and others) 1986. Inhibition of virulent mycobacterium tuberculosis by immune perioneal macrophages and human alveolar lavage cells. The effects of lymphokines and recombinant gamma interferon. *Tubercle,* vol. 67, 289-294.

JOHNSON, N. McI. (and others) 1986. The function and properties of human lung mast cells. *Respiration,* vol. 50, suppl. 2, 31-41.

JOHNSON, N. McI. (and others) 1987. Human pulmonary mast cells obtained by bronchoalveolar lavage and fromlung parenchyma. *Fedn. Proc.,* vol. 46, 936.

JOHNSON, N. McI. (with Hall, T. J., Hudspith, B. N., Brostoff, J.) 1987. Increased natural killer cell activity in sarcoidosis. *Int. Arch. Allergy Applied Immunol.,* vol. 82, 10-16.

JOHNSON, N. McI. (with Flint, K. C.) 1987. Pulmonary eosinophilia associated with naproxen therapy. *J. Royal Society of Medicine,* vol. 80, 120-121.

JOHNSON, N. McI. (and others) 1987. Lack of immune deficiency in sarcoidosis; compartmentalization of the immune response. *Thorax,* vol. 42, 250-255.

JOHNSON, N. McI. (and others) 1987. Some further properties of human pulmonary mast cells recovered by bronchoalveolar lavage and enzymic dispersion of lung tissue. *Agents and Actions,* vol. 20, 213-215.

JONES, D. A. (with Bigland-Ritchie, B.) 1987. Electrical and contractile changes in muscle fatigue. In *International Series on Sport Sciences, vol. 16, Biochemistry of Exercise VI,* 377-392. Bengt Saltin (editor). (Illinois: Human Kinetics Publishers).

JONES, D. A., ROUND, J. (with Rodda, C., Grant, D. B.) 1987. Muscle strength in girls with congenital adrenal hyperplasia. *Acta Paediatr. Scand.*, vol. 76, 495-499.

JONES, D. A., COPPER, M., FORTE, C. A. (and others) 1987. The effect of oral supplementation with L-carnitine on maximum and submaximum exercise capacity. *Eur. J. Appl. Physiol.*, vol. 56, 457-460.

KARMALI, R., O'RIORDAN, J. L. H. (and others) 1986. Vitamin D-dependent rickets type II: extreme end organ resistance to 1,25-dihydroxy vitamin D3 in a patient with alopecia. *European Journal of Pediatrics,* vol. 145, 389-395.

KARMALI, R., BARKER, S., JOHNSON, N. McI., O'RIORDAN, J. H. L. (and others) 1986. The control of production of 1,25 hydroxy vitamin D3 in man: studies of vitamin D deficiency and sarcoidosis. Vitamin D. *A Chemical, Biochemical and Clinical Update,* 1064-1073.

KINGSWOOD, J. C., MOULT, P. J. A. (with Woolf, A. S., Lewis, C. A., Thompson, F. D.) 1987. Physiological and phanuacological mediators of atrial natriuretic peptide release (abstract). *Clin. Sci.*, vol. 73, suppl. 17, 1, 25.

KRYWAWYCH, S., BRENTON, D. P. (with Katz, G., Lawson, A. M., Wyatt, S.) 1986. Glycerol-3-phosphate Excretion in Frunctose-1,6-diphosphatase Deficiency. *J. Inher. Metab. Dis.*, vol. 9, 388-392.

KRYWAWYCH, S., BRENTON, D. P. (with Patton, M. A., Winter, R. M., Baraitser, M.) 1987. DOOR Syndrome (Deafness, Onycho-Osteodystrophy, and Mental Retardation): Elevated Plasma and Urinary 2-Oxoglutarate in Three Unrelated Patients. *American Journal of Medical Genetics,* vol. 26, 207-215.

LEAKER, B. (and others) 1986. Triamterine-induced chrystalluria and cylinduria. Clinical and experimental studies. *Clin. Nephr.*, vol. 26, no. 4, 169-173.

LEAKER, B. (and others) 1987. Lupus nephritis. Clinical and pathological correlation. *Quart. J. Med.*, vol. 62, no. 238, 163-179.

LEAKER, B., MILLER, R. F., COHEN, S. L. 1987. Treatment of acute renal failure, symmetrical peripheral gangrene and septicaemia with plasma exchange and EPO prostenol. *Lancet,* i, 156.

LEAKER, B., MILLER, R. F., COHEN, S. L. 1987. Microscopic Poly-arteritis. Recovery of Renal function after prolonged dialysis. *Nephrol. Dialys. Transplant.*, vol. 2, no. 2, 125-126.

LING, K. L. E., VELLA, M. A., BETTERIDGE, D. J. 1986. Plasma precursors of eicosanoids and docosanoids in diabetic subjects with and without large vessel disease. *Diabetotoilogia,* vol. 29, 565A.

LING, K. L. E. (with others) 1987. Computer programs for accurate determination of size of DNA fragments in agarose gels. *J. Clin. Path.*, vol. 40, no. 6, 692-695.

MCNEIL, N. I. 1986. The effect of luminal pH on large intestinal absorption in ulcerative procto colitis. *Diseases of Colon and Rectum,* vol. 29, 814-816.

MCNEIL, N. I., LING, K. L. E., WAGER, J. 1987. Mucosal surface pH of the large intestine of the rat and of normal and inflamed large intestine in man. *Gut,* vol.28, 707-713.

MILLAR, A. B. (with Denison, D. M., Morgan, M. D. L.) 1986. Estimates of regional gas and tissue volumes of the lung in man using computed tomography. *Thorax,* vol. 41, 620-628.

MILLAR, A. B. (and others) 1986. A comparison of nasal and tracheobronchial clearance using similar techniques in normal subjects. *Ibid.,* 783-786.

MILLAR, A. B. (with Francis, B., Strickland, B. A., Denison, D. M.) 1986. Computed tomography based estimates of regional gas and tissue volume of the lung in supine subjects with chronic airflow limitations of fibrosing alveolites. *Ibid.,* 932-939.

MILLAR, A. B. (with others) 1987. Dose response to three concentrations of ipratropium bromide: a double blind placebo controlled study. *Thorax,* vol. 42, 231.

MILLAR, A. B. (with others) 1987. Subcutaneous adrenaline versus terbutaline in the treatment of acute severe asthma. *Ibid.,* 231.

MILLAR, A. B. 1987. An electromyographic study of the abdominal muscles during postural and respiratory manoevres. *J. Neurol. Neurosurg. Psych,* vol. 50, 866-869.

MILLAR, A. B. 1987. Aids and the lung. *Br. Med J.,* vol. 294, 1334-1337.

MILLER, R. F. (with Langford, J. A., Pearson, M. C., Rudd, R. M.) 1986. Technicium 99 in glucoheptonate lung imaging; has it a role in the diagnosis of bronchial carcinoma? *Nuclear Medicine communications,* vol. 7, 907-914.

MILLER, R. F. 1987. Zschocua D. A. Mosby's comprehensive Review of Critical Care. *Intensive Care Medicine,* vol. 13, 80.

MILLER, R. F., SEMPLE, S. J. G. 1987. Autonomic Neuropathy and AIDS. *Lancet,* ii, 343-344.

MOULT, P. J. A. (and others) 1987. Clinical evaluation of Lysuride in the management of hyperprolactinaemia. *Br. Med. J.,* vol. 294, 1323-1324.

MOULT, P. J. A. (with Woolf, A. S., Sutters, M., Mansell, M. A.) 1987. Physiological release of atrial natriuretic peptide in a heart transplant recipient (letter). *Lancet,* i, 213.

NABARRO, J. D. N. (with Hayward, R. P., Emanuel, R. W.) 1987. Acromegalic Heart Disease: Influence of Treatment of the Acromegaly on the Heart. *Quart. J. Med.,* vol. 62, 41-58.

NABARRO, J. D. N. 1987. Acromegaly. *Clin. Endo.,* vol. 26, 481-512.

NEWHAM, D. J. 1986. Nutritional status and skeletal muscle contractility. *Br. J. Parenteral Ther.,* vol. 7, 93-96.

NEWHAM, D. J. (with Harrison, R. A., Clark, C. G.) 1986. The effect of major abdominal surgery on skeletal muscle function. *Br. J. Surg.,* vol. 73, 1028.

NEWHAM, D. J., ROUND, J. M. (and others) 1987. An examination of the factors influencing creatinine kinase activities in the blood of patients with muscular dystrophy. *Muscle and Nerve,* vol: 10, 21.

NEWHAM, D. J. (with Tomkin, A. M., Clark, C. G.) 1986. Contractile properties of adductor pollicis in obese patients on a hypocaloric diet for two weeks. *Am. J. Clin. Nutr.,* vol. 44, 756-760.

NEWHAM, D. J., JONES, D. A. (with Edwards, R. H. T., Chapman, S. J.) 1987. Practical analysis of variability of muscle function measurements in Duchenne muscular dystrophy. *Muscle and Nerve,* vol. 10, 6-14.

O'RIORDAN, J. L. H. (and others) 1986. Evidence for extra renal metabolism of 25-hydroxy D3 in man. *Clincal Science,* vol. 71, 98-95.

O'RIORDAN, J. L. H. (with Fraher, L. J.) 1986. Production of 1,25-dihydroxycholecalciferol in man. *8th ICCRH.* 16-24. 10.83.

O'RIORDAN, J. L. H. (and others) 1986. The effect of haemodialysis, vitamin D metabolites and renal transplantation on the skeletal demineralisation associated with renal osteodystrophy - a computerised histomorphometric analysis. *Clinical Nephrology,* vol. 6, 279-287.

O'RIORDAN, J. L. H. (and others) 1986. Controlled trial of calcitriol in hemodialysis patients. *Clinical Nephrology,* vol. 26, no. 4, 185-191.

O'RIORDAN, J. H. L., JOHNSON, N. McI. (and others) 1986. Ecoptic genesis of 1,25-(OH)2 Vitamin D3 in sarcoidosis. *Clin. Sci.*, vol. 70, suppl. 13, 70P.

O'RIORDAN, J. L. H. (and others) 1987. Carcinoid Tumour of Stomach and Primary Hyperparathyroidism: a new association. *J. Clinical Pathology,* vol. 40, 546-551.

OSWALD, G., SMITH, C. C. T., BETTERIDGE, D. J., YUDKIN, J. S. 1986. Determination and significance of stress hyperglycaemia in non-diabetics with myocardial infarction. *Br. Med. J.*, vol. 293, 917-922.

OSWALD, G. A., CORCORAN, J. S., PATTERSON, D. L. H., YUDKIN, J. S. 1986. The extent of coronary artery disease in diabetic patients with myocardial infarction - and ECG study. *Diabetic Medicine,* vol. 3, 541-544.

OSWALD, G. A., YUDKIN, J. S. 1987. Hyperglycaemia following acute myocardial infarction; the contribution of undiagnosed diabetes mellitus. *Diabetic Medicine,* vol. 4, 68-70.

OSWALD, G. A., YUDKIN, J. S. 1987. A within-patient cross-over trial of 4 insulin regimens in antibody-negative C-peptide-negative patients. *Diabetes Research,* vol. 4, 85-89.

OSWALD, G. A., CORCORAN, J. S., YUDKIN, J. S. 1987. Changes in pulmonary venous pressure and albumin concentration during treatment of severe diabetic decompensation. *Ibid.*, 91-94.

OUGHTON, J., COOPER, M. B., YUDKIN, J. S. (with Gould, B. J.) 1986. Glycosylation, but not cross-linking, of cardiac myosin is found in diabetic subjects. *Br. Diabetic Assoc. Autumn Meeting, Diabetic Medicine,* vol. 3, 570A.

PAYNE, N. N., SLATER, J. D. H. (with others) 1986. The effect of atrial natruiretic peptide on plasma renin activity, plasma aldosterone, and urinary dopamine in man. *European Journal of Pharmacology,* vol. 31, 223-226.

PAYNE, N. N., SLATER, J. D. H. (with others) 1987. Tachycardia-induced natriuresis and atrial natriuretic peptide. In: *Biologically Active Atrial Peptides, Vol. 1: American Society of Hypertension Series,* 541-544. B. M. Brenner, J. H. Laragh (editors). (New York: Raven Press).

PAYNE, N. N., SLATER, J. D. H. (with others) 1986. Atrial natriuretic peptide inhibits the aldosterone response to angiotenin II in man. *Clinical Science,* vol. 70, 507-512.

PAYNE, N. N., SLATER J. D. H. (with others) 1987. Atrial natriuretic peptide: evidence of action as a natriuretic hormone at physiological plasma concentrations in man. *Clinical Science,* vol. 72, 305-312.

PRINGLE, J., ABDULWAHID, N. A., JACOBS, H. S., BROOK, C. G. D. (and others) 1986. Problems in inducing puberty by pulsatile GnRH. In *Pulsatile GnRH 1985. Proc. 3rd Ferring Symposium.*, 225-233. H. J. T. Coelingh-Bennink, A. A. Dogteron, R. E. Lappohn, R. Rolland, J. Schoemaker and B. V. Ferring (editors). (The Netherlands: Haarlem).

PRINGLE, J. P., JACOBS, H. S., BROOK, C. G. D. (with Stanhope, R., Adams, J.) 1987. The Evolution of polycystic ovaries in a girl with hypogonadotrophic hypogonadism before puberty and during puberty induced with pulsatile gonadotropin releasing hormone. *Fertility and Sterility,* vol. 47, 872-875.

ROUND, J. M., JONES, D. A. (with Linhares, E. D. R.) 1986. Growth, bone maturation, and biochemical changes in Brazilian children from 2 different socio-economic groups. *Am. J. Clin. Nutr.*, vol. 44, 552-558.

ROUND, J. M., JONES, D. A. (with Preece, M. A.) 1987. Growth hormone deficiency in adults - an indication for therapy? *Acta Paediatr. Scand.*, vol. 76, 331-332.

RUTHERFORD, O. M., JONES, D. A. (with Greig, C. A., Sargeant, A. J.) 1986. Strength training and power output: transference effects in the human quadriceps muscle. *J. Sports Sci.*, vol. 4, 101-107.

RUTHERFORD, O. M., JONES, D. A., NEWHAM, D. J. 1986. Clinical and experimental application of the percutaneous twitch superimposition technique for the study of human muscle activation. *J. Neur. Neurosurg. Psychiat.*, vol. 49, 1288-1291.

SEMPLE, S. J. G., CROSS, B. A., STIDWILL, R. P., LEAVER, K. D. 1986. Changes in PaO_2 modulate the sensitivity of cartoid chemoreceptors to alterations in the rate of change of PaO_2 oscillations. In *Proc. Int. Union of Physiol. Sciences. 30th Congress, Vancouver, Canada, 13-18th July,* XVI 306.

SEMPLE, S. J. G. 1987. BBC and ITV News. 9th April 1987. Visit of HRH Princess of Wales to Broderip Ward, The Middlesex Hospital.

SEMPLE, S. J. G. Thames Television. 13th may 1987. ITV. This Week - The Toughest Job in Medicine.

SLATER, J. D. H. (with Daniels, C. R., Eisen, V.) 1986. The renin-angiotensinogen reaction during pregnancy and oral contraception: estimation of kinetic parameters by an autologous plasma renin assay. *J. Endorinology*, vol. 112, 465-472.

SLATER, J. D. H. 1987. Kidney disease: an update. *Balance*, vol. 97, 48-49.

SLATER, J. D. H. (with Eisen, V. and Munday, M. R.) 1987. Effects of angiotensin 1 converting enzyme inhibition and calcium channel blockade on plasma levels of active and inactive renin in conscious rabbits. *Biochemical Pharmacology,* vol. 36, 2331-2335.

SMITH, C. C. T., WILSON, A. P. BETTERIDGE, D. J., (with Prichard, B. N. C.) 1987. Platelet catecholamines. In *Fortschritte in der Hochdruckforschung 2*. J. Rosenthal (editor). (Müchen: W. Zuckschwerdt Verlag).

SMITH, C. C. T., BETTERIDGE, D. J. (and others) 1986. Effects of additional properties of beta adrenoceptor antagonists on plasma noradrenaline response to acute administration. *Eur. J. Clin. Invest.*, vol. 16, A60.

SMITH, C. C. T., WILSON, A. P., CURTIS, L. D., BETTERIDGE, D. J. (with Prichard, B. N. C.) 1986. Platelet efflux on noradrenaline in normal and diabetic subjects. *Diabetologia*, vol. 29, 595A.

SMITH, M. and TREASURE, T. (with Drake, H. F.) 1987. Dopamine and dobuamine cause hypokalaemia which is not attenuated by beta, or beta 2 blockade in dogs. *Canadian Journal of Anaesthesia 1987*; 34 (3/II); S120-121.

SMITH, P. M., BROOK, C. G. D. (and others) 1986. Nocturnal pulsatile growth hormone releasing hormone treatment in growth hormone deficiency. *Clinical Endorinology,* vol. 25, 35-44.

SMITH, P. J., HINDMARSH, P., BROOK, C. G. D. (with Kendall, B.) 1986. Dysgenesis of the corpus callosum and hypopituitarism. *Acta Paediatrica Scandinavica*, vol. 75, 923-926.

SMITH, P. J., BROOK, C. G. D. 1987. The place of intravenous GHRH 1-40 studies in the therapy of growth hormone-deficient children with GHRH. *Clinical Endocrinology*, vol. 27, 97-105.

SPIRO, S. G. The staging of lung cancer. 1986. In *Recent Advances in Respiratory Medicine, 4.* D. C. Flenley and T. L. Petty (editors). (Edinburgh: Churchill Livingstone).

SPIRO, S. G. (with Efthimiou, J.) 1986. Pulmonary involvement in Behçet's Syndrome. In *Recent Advances in Behçet's disease.* 261-266. T. Lehner and C. G. Barnes (editors). (London: Royal Society of Medicine Services).

SPIRO, S. G. (with Horne, N. W.) 1987. Tumours of the lung, mediastinium and pleura. In *Oxford Text Book of Medicine. 2nd Edition, vol. 2,* Section 15, 145-158. (Oxford University Press).

SPIRO, S. G. (with Efthimiou, J., Johnston, C., Turner-Warwick, M.) 1986. Pulmonary complications for Behçet's Syndrome. *Quart. J. Medicine,* vol. 58, 259-280.

SPIRO, S. G. (with Moxham, J.) 1986. Symptoms and signs of respiratory disease. *Medicicne International,* vol. 2, 1377-1383.

SPIRO, S. G. (with Fairfax, A. J., McNabb, W. R.) 1986. Chylothorax: a review of 18 cases. *Thorax,* vol. 41, 880-885.

SPIRO, S. G. (and others) 1986. Nocturnal angina: precipitating factors in patients with coronary artery disease and those with variant angina. *British Heart Journal,* vol. 56, 346-352.

SPIRO, S. G. 1986. Lung Cancer - presentation and diagnosis. *Medicine International,* vol. 2, 1465-1470.

SPIRO, S. G. 1986. Lung Cancer - staging and treatment. *Ibid.,* 1470-1474.

SPIRO, S. G. 1986. Mediastinal masses. *Ibid.,* 1475.

SPIRO, S. G., SOUHAMI, R. L. (with Geddes, D. M., Harper, P. G., Tobias, J. S.) 1986. Quality of life during chemotherapy for small cell carcinoma of the lung. *Thorax,* vol. 41, 719.

SPIRO, S. G. (with La Puma, J., Williams, A. J.) 1986. Resource utilization and respiratory failure: United Kingdom versus the United States. *Clinical Research,* vol. 34, no. 4, 1013A.

SPIRO, S. G. 1987. Is bone marrow sampling necessary in patients with small cell lung cancer? *Lancet,* i, 83.

SPIRO, S. G. (and others) 1987. Effect of particle sizes of bronchodilator aerosols on lung distribution of pulmonary function in patients with chronic asthma. *Thorax,* vol. 42, 457-461.

SPIRO, S. G. (with Efthimiou, J., Fleming, J., Gomes, C.) 1987. Effect of supplementary oral nutrition in poorly nourished patients with chronic obstructive pulmonary disease (COPD). *Ibid.,* 227.

SPIRO, S. G. (with Efthimious, J., Fleming, J., Gomes, C.) 1987. Effect of supplementary oral nutrition in poorly nourished patients with chronic obstructive pulmonary disease. *Am. Rev. Respir. Dis.,* vol. 135, A149.

TAGGART, P. I., TREASURE, T. (with others) 1987. Assessment of myocardial revascularisation at the time of graft completion by monophasic action potential recordings. *British Cardiac Society Meeting - Autumn 1986. Brit. H. J.,* vol. 57, 93.

TAGGART, P. I., TREASURE, T. (with others) 1986. Use of monophasic action potential recordings during routine coronary-artery bypass surgery as an index of localised myocardial ischaemia. *Lancet,* i, 1462-1465.

TAGGART, P., TREASURE, T. (and others) 1986. Epicardial monophasic action potentials. *Lancet,* ii, 583 (letter).

TEAHAN, C., ROWE, P., SEGAL, A. W. (with Parker, P., Totty, N.) 1987. The X-linked chronic granulomatous disease gene codes for the ß-chain of cytochrome ^{b}-245. *Nature,* vol. 327, 720-721.

THAKKER, R. V., KARMALI, R., O'RIORDAN, J. L. H. (with Fraher, L. J., Adami, S.) 1986. Circulating concentrations of 1,25-dihydroxy vitamin D3 in patients with primary hyperparathyroidism. *Bone and Mineral,* vol. 1, 137-144.

THAKKER, R. V., BRENTON, D. P., O'RIORDAN, J. L. H. (and others) 1986. Mapping of human X-linked hypophosphataemic rickets by multilocus linkage analysis. *Human Genetics,* vol. 73, 267-270.

TREASURE, T. 1986. Dissection of the Thoracic Aorta. In *Recent advances in Surgery, Chapter 12.* R. C. G. Russell (editor). (Edinburgh: Churchill Livingstone).

TREASURE, T. 1987. Coronary artery bypass surgery. *Hobsley & Hadfield. Current Surgical Practice, Vol. 4.* Edward Arnold (editor).

TREASURE, T. (with others) 1986. The changes in cerebral blood flow following coronary artery bypass surgery. *The British Nuclear Medicine Society Annual Meeting, London, April 1986.* (Abstract): *Nucl. Med. Comm.,* vol. 7, 273.

TREASURE, T. (with Drake, H. F.) 1986. Continuous monitoring of plasma potassium during infusions of propamine, dobutamine and isoprenaline in dogs. *Br. J. Anaesth.,* vol. 58, 1137p.

TREASURE T., SEMPLE, S. J. G. (with Drake, H. F.) 1986. Dopamine, dobutamine and isoprenaline cause hypokalaemia due to hepatic uptake in dogs. *Clinical Science,* vol. 71, suppl. 15, 83-84P.

TREASURE, T., TAGGART, P. (with Sutton, P., O'Brien, B.) 1987. Intraoperative recording of the left ventricular myocardial action potential to demonstrate relief of ischaemia. *Brit. H. J.,* vol. 57, 77-78.

TREASURE, T. (with Thomas, H., Hunter, G. J., Swanton, H.) 1987. Intravenous digital subtraction angiography in aortic root abscess. *Ibid.,* 103.

TREASURE, T. (with Pugsley, W. B., Baldwin, T., Sturridge, M. F.) 1987. Low energy level internal defibrillation during cardiopulmonary bypass. *Ibid.,* 566.

TREASURE, T. (with Parry, R. C., Ratnatunga, C.) 1987. A quart into a pint pot: computer modelling to improve cardiac surgical throughput. *Ibid.,* 591.

TREASURE, T. (with Wilson, A. P. R., Grünberg, R. N., Sturridge, M. F.) 1986. A scoring method (Asepsis) for postoperative wound infections for use in clinical trials of antibiotic prophylaxis. *Lancet,* i, Feb. 1986, 311-312.

TREASURE, T. (with Smith, P. L. C.) 1986. Cerebral consequences of cardiopulmonary bypass. *Lancet,* i, 823-825.

TREASURE, T. (with others) 1986. Intravenous Xe133 cerebral blood flow studies in the assessment of the cerebral consequences of coronary artery bypass surgery. In *Padioaktive isotope in clinik und forschung,* 21-26. Herausgegeben von Rudolph Hofer und Helman Bergmann (editors). (Vienna: Verlag H. Egermann).

TREASURE, T., JOHNSON, N. McI. (with Swinburn, C. R., Pozniak, A. L., Garfield, Davies, D.) 1986. Left recurrent laryngeal nerve palsy as the presenting feature of sarcoidosis. *Sarcoidosis,* vol. 3, 67-68.

TREASURE, T. (with Wilson, A. P. R., Sturridge, M. F., Grüneberg, R. N.) 1986. Antibiotic prophylaxis in cardiothoracic surgery in the United Kingdom: current practice. *Thorax,* vol. 41, no. 5, 396-400.

TREASURE, T. (with Wilson, A. P. R., Grüneberg, R. N., Sturridge, M. F.) 1986. A clinical trial of teicoplanin compared with a combination of flucloxacillin and tobramycin as antibiotic prophylaxis for cardiac surgery: the use of a scoring method to assess the incidence of wound infection. *Journal of Hosp. Infection,* vol. 7, suppl. A, 105-112.

TREASURE, T. (with Hawkins, S., Forsling, M., Aveling, W.) 1986. Changes in pressor hormone concentrations in association with coronary artery surgery, Renin and Vasopressin. *Br. J. Anaesth.,* vol. 58, 1267-1272.

TREASURE, T. (with others) 1986. Changes in plasma vasopressin concentration in association with coronary artery surgery of thymectomy. *Ibid.,* 1273-1277.

TREASURE, T. (with Drake, H. F., Smith, B.) 1987. Continuous display of plasma potassium during cardiac surgery. *Anaesthesia,* vol. 42, 23-29.

TREASURE, T. 1986. Need all young surgeons be Masters? Editorial, *Br. J. Hosp. Med.,* vol. 36, no. 3, 163.

TREASURE, T. 1986. Introduction and Review: Diseases of the Aorta. *Current Opinion in Cardiology,* vol. 1, 641-642.

TREASURE, T. (with Pugsley, W.) 1986. Surgery for acute myocardial infarction: ventricular septal rupture and mitral regurgitation. *Ibid.,* 859-863.

TREASURE, T. 1987. Hearts and Minds: how big is the risk of coronary surgery? *Br. J. Hosp. Med.,* vol. 37, 9.

TUNG, K. T., SEMPLE, S. J. G., JOHNSON, N. McI. 1986. Clinical and bronchoscopic diagnosis of suspected pneumonias related to AIDS. *Br. Med. J.,* vol. 293, 797-799.

TUNG, K. T. (with Woolf, A. S.) 1987. Prostatic involvement in Wegeners granulomatosis. *Postgraduate Medical Journal,* vol. 63, 53-54.

WILSON, A. P., NATHAN, M., BETTERIDGE, D. J. 1986. Effect of metformin on platelet aggregation and prostanoid generation in vitro. *Diabetologia,* vol. 26, 595A.

WILSON, A. P., BETTERIDGE, D. J. (with Efthimiou, J.) 1987. Platelet function in patients with Behçet's syndrome. *Eur. J. Clin. Invest.,* vol. 17, A15.

WILSON, A. P., BETTERIDGE, D. J. (with Efthimiou, J.) 1987. Decreased prostacyclin sensitivity of platelets in patients with Behçet's syndrome. *Clin. Sci.,* vol. 72, suppl. 16, 20p.

WILSON, A. P., SMITH, C. C. T., BETTERIDGE, D. J. (with Prichard, B. N. C.) 1987. Platelet catecholamines and platelet function in normal human subjects. *Clin. Sci.,* vol. 73, 99-103.

WRONG, O. M. (with Duffy, F. A., Marshall, R. D.) 1987. A study of immune responses to Tamm-Horsfall glycoprotein in the sera of patients with renal tubular acidosis. *Clin. Nephrol.,* vol. 28, 39-47.

YUDKIN, J. S., HURWITZ, B. S. (with Doyal, L.) 1987. Who shall live? ethical inconsistencies in treating elderly patients in diabetic ketoacidosis. *Br. Diabetic Assoc. Spring Meeting, Diabetic Medicine,* vol. 4, 363.

YUDKIN, J. S. (with others) 1986. A second open letter to the General Medical Council.*Medical Education,* vol. 20, 366-370.

YUDKIN, J. S., KURTZ, A. (with others) 1986. Pattern electroretinograms become abnormal when background diabetic retinopathy deteriorates to a preproliferative stage: possible use as a screening test. *Br. J. Opththalmology,* vol. 70, 330-335.

YUDKIN, J. S. (with Moss, F., Cochrane, J. P.S.) 1987. Introducing medicine to tomorrow's doctors. *Lancet,* i, 203-205.

YUDKIN, J. S., OSWALD, G. A. 1987. Hyperglycaemia following acute myocardial infarction; the contribution of undiagnosed diabetes mellitus. *Diabetic Medicine,* vol. 4, 68-70.

OBSTETRICS AND GYNAECOLOGY

ARMAR, N. A. (with Adams, J., Jacobs, H. S.) 1987. Induction of ovulation with pulsatile LHRH. In *Recent Advances in Obstetrics and Gynaecology,* 259-277. H. Bonnar (editor). (Edinburgh: Churchill Livingstone).

ARMAR, N. A. (and others) 1987. Practical aspects of pulsatile LHRH therapy. *Br. J. Hosp. Med.,* vol. 37, no. 5, 429-436.

ARMAR, N. A. (with Morris, D. V., Abdulwahid, N. A., Jacobs, H. S.) 1987. The response of patients with hypothalamo-pituitary disease to pulsatile GnRH therapy. *Fert. & Steril.,* vol. 47, 54-59.

BRANT, H. A. (Consultant.) 1986. *The complete Mothercare manual.* E. Johnson-Gilbert (editor). (London: Conran Octopus). 304 pp.

BRANT, M. 1986. Pregnancy and birth. *Ibid.,* 10-63.

COLLEY, N. (with Talbert, D. G., Southall, D. P.) 1986. Biophysical profile in the fetus from a phonographic sensor. *Europ. J. Obstet. Gynaecol.,* vol. 23, 261-266.

COLLEY, N., KNOTT, P. D. (with Gould, S. G.) 1987. Misdiagnosis of an omphaloeoele associated with Edwards syndrome. *Prenatal Diagnosis,* vol. 7, 377-381.

DARNE, J., McGARRIGLE, H. H. G., LACHELIN, G. C. L. 1987. Increased saliva oestriol to progesterone ratio before idiopathic preterm delivery: a possible predictor for preterm labour? *Br. Med. J.,* vol. 294, 270-272.

DARNE, J., McGARRIGLE, H. H. G., LACHELIN, G. C. L. 1987. Saliva oestriol, oestradiol, oestrone and progesterone levels in pregnancy: spontaneous labour at term is preceded by a rise in the saliva oestriol: progesterone ratio. *Br. J. Obstet. Gynaecol.,* vol. 94, 227-235.

FAIRWEATHER, D. V. I. 1986. Caesarean sections for delivery of very low birth-weight babies. In *One Birth in Nine,* 47-50. D. Bartley and R. Evans (editors). (London: Maternity Alliance).

GUILLEBAUD, J. 1987. The mechanism of the Pill. In *Oral Contraception in Perspective,* 75-84. A. D. G. Gunn (editor). (Carnforth: The Parthenon Publishing Group).

GUILLEBAUD, J. 1986. Any questions. *Br. Med J.,* vol. 293, 1090.

GUILLEBAUD, J. 1986. Oral contraception: how to handle a changeover from one pill to another? *Med. Dial.,* no. 109.

GUILLEBAUD, J. 1987. The forgotten pill - and the paramount importance of the pill-free week. *Br. Med J. Fam. Plan.,* vol. 12, 35-43.

GUILLEBAUD, J. (with MacKenzie, I. Z., Turner, E., O'Sullivan, G. M.) 1987. Two hundred outpatient laparoscopic clip sterilizations using local anaesthesia. *Br. J. Obstet. Gynaecol.,* vol. 94, 449-453.

HOOKER, J. G., HENSON, G. L. 1986. Hypertension in pregnancy: a trial comparing admission to hospital with management in a day unit. *J. Obstet. Gynaecol.,* vol. 7, no. 2, 152.

KATZ, M. (and others) 1987. Hypothalamic-pituitary-gonadal axis in thalassaemia patients with secondary amenorrhea. In *Thalassemia Today - The Mediterranean Experience,* 279-284. G. Sirchia and A. Zanella (editors). (Italy: Centro Transfusionale Ospedale Maggiore Policlinico di Milano Editore).

KATZ, M., McGARRIGLE, H. H. G. (and others) 1986. Assessment of ovarian function following human menopausal gonadotrophin stimulation in patients with thalassaemia major. In *La Maturazione Sessuale Nella β-Thalassemia Major, Ferrara, 12-13 September 1986,* 69-74.

KATZ, M. (and others) 1986. Ovarian involvement in thalassaemic patients with sexual infantilism and primary amenorrhoea. *Ibid.,* 119-130.

KATZ, M. (and others) 1986. Hypothalamic-pituitary-gonadal axis in thalassaemic patients with secondary amenorrhea. *Ibid.,* 133.

KATZ, M. (with Chatterjee, R., Wonke, B.) 1986. Physiological induction/acceleration of puberty in patients with ß-thalassaemia major. *Ibid.,* 161-174.

KATZ, M. (and others) 1986. Induction of spermatogenesis in thalassaemic patients. *Ibid.,* 201-206.

KNOTT, P. D. (with Penketh, R. J. A., Lucas, M. K.) 1986. Uptake of amniocentesis in women aged 38 years or more by the time of the expected date of delivery: a two-year retrospective study. *Br. J. Obstet, Gynaecol.,* vol. 93, 1246-1250.

KNOTT, P. D., WARD, R. H. T. (with Lucas, M. K.) 1986. Effect of chorionic villus sampling and early pregnancy counselling on uptake of prenatal diagnosis. *Br. Med. J.,* vol. 293, 479-480.

KUBBA, A. A., GUILLEBAUD, J., BOUNDS, W. (with Rowlands, S.) 1986. A possible mechanism of action of danazol and an ethinylestradiol/norgestrel combination of use as postcoital contraceptive agents. *Contraception,* vol. 33, no. 6, 539-545.

KUBBA, A. A., GUILLEBAUD, J. 1986. Contraception (clinical algorithms). *Br. Med. J.,* vol. 293, 1491-1494.

KUBBA, A. A. 1986. Missed pills: what advice should the GP give? *Medical Dialogue,* no. 109.

LACHELIN, G. C. L., DARNE, F. J., McGARRIGLE, H. H. G. 1987. Significant circadian rhythm of plasma dehydreopiandrosterone sulfate (DS) but not estriol (E3), estradiol (E2), estrone (E1) or progesterone (P) at different stages of pregnancy. *Society for Gynecologic Investigation, Atlanta, Georgia, USA, 18-21 March 1987.* (Abstract).

LACHELIN, G. C. L. (with Worth, P. H. L.) 1987. Asherman's syndrome following attempted removal of a lost Dalkon shield which was finally found in the bladder. *Br. J. Fam. Plan.,* vol. 13, 16-17.

McGARRIGLE, H. H. G. (with Selby, P. L., Peacock, M.) 1987. Comparison of the metabolism and action of oral and transdermol oestradiol in postmenopausal women. *J. Endocrinology,* vol. 112, suppl. no. 43.

MAXWELL, D. J. (and others) 1987. Transabdominal chorion villus sampling: development and clinical application. In *Chorion Villus Sampling,* 161-173. D. T. Y. Liu, E. M. Symonds and M. S. Golbus (editors). (London: Chapman and Hall).

MAXWELL, D. J. (with Helm, W., Lilford, R. J.) 1986. A prospective study of the use of ultrasound in vaginal legal abortion before 20 weeks of pregnancy. *J. Obstet, Gynaecol.,* vol. 7, no. 2, 143-145.

MAXWELL, D. J. (with Lilford, R. J.) 1986. Transabdominal chorion villus sampling. *J. Obstet. Gynaecol.,* vol. 7, no. 2, 155.

MILLS, A. M. (Medical Consultant) 1986. *Women's Health Book.* Y. Deutch (editor). (London: Marshall Cavendish). 184 pp.

MILLS, A. M. (Editor) 1987. *AIDS family planning and well-woman services.* (London: Family Planning Association publication).

MILLS, A. M. 1987. The forgotten progestogen only Pill. *Br. J. Fam. Plan.*, vol. 12, no. 1, 14.

MILLS, A. M. 1987. Still on the Pill at 35? *Good Health Magazine,* vol. 2, no. 1, 21.

MILLS, A. M. 1987. Editorial: confidential enquiry into deaths from cervical cancer? *Br. J. Fam. Plan.*, vol. 13, no. 1, 1.

MILLS, A. M. 1987. Contraception for the older woman. *Maternal and Child Health,* vol. 12, no. 3, 79-82.

MILLS, A. M. (Editor) 1987. AIDS family planning and well-woman services. Provisional guidelines from the Family Planning Association and the National Association of Family Planning Doctors. *Br. J. Fam. Plan.*, vol. 13, 11-15.

MILLS, A. M. 19 September 1986. ITN, One o'clock News. (Oral contraception and breast cancer).

MILLS, A. M. 19 September 1986. BBC1, Six o'clock News. (Oral contraception and breast cancer).

MILLS, A. M. 19 September 1986. LBC Radio. (Oral contraception and breast cancer).

MODELL, C. B., PETROU, M., WARD, R. H. T. (and others) 1986. First trimester fetal diagnosis for haemoglobinopathies: report on 200 cases. *Lancet,* ii, 763-766.

MODELL, B., WARD, R. H. T., PETROU, M. (and others) 1987. Two unusual cases of first trimester prenatal diagnosis of cystic fibrosis using DNA probes. *Prenat. Diag.*, vol. 8, 215-221.

PERERA, D. M. D., McGARRIGLE, H. H. G., LAWRENCE, D. (with Lucas, M.) 1987. Amniotic fluid testosterone and testosterone glucuromide levels in the determination of foetal sex. *J. Steroid Biochem.*, vol. 26, no. 2, 273-277.

ROBINSON, G. E., GUILLEBAUD, J. 1987. Contraception. *MIMS Magazine.*

SERHAL, P., KATZ, M. 1987. Intrauterine insemination. *Lancet,* i, 52.

SERHAL, P., CRAFT, I. 1987. Simplified treatment for ovum donation. *Lancet,* i, 687.

SIDDLE, N. C. (with Lane, G., Padwick, M., Whitehead, M.) 1986. The offset of dydrogesterone on the oestrogenised postmenopausal endometrium. *Br. J. Obstet. Gynaecol.*, vol. 93, 55-62.

SIDDLE, N. C. (with Padwick, M., Whitehead, M.) 1986. Oestriol with oestradiol versus oestradiol alone: a comparison of endometrial symptomatic and psychological effects. *Br. J. Obstet. Gynaecol.*, vol. 93, 606-612.

SIDDLE, N. C. (with Sanel, P., Whitehead, M.) 1987. The effect of hysterectomy on the age at ovarian failure: identification of a subgroup of women with premature loss of ovarian function. *Fertility and Sterility,* vol. 47, 94-98.

SIDDLE, N. C. 1986. Hormone replacement therapy: who should be treated? *Medical Dialogue,* no. 104.

SIDDLE, N. C. 1987. IUDs - a change of approach. *Br. J. Fam. Plan.*, vol. 12, no. 14, 138-142.

SINCOCK, A. M. 1986. Semi-automated diagnosis of cervical intra-epithelial neoplasia grade 2 by the measurement of acid labile DNA in cytologically normal nuclei. *Cancer,* vol. 58, 83-86.

SINGER, A. 1987. Anatomy of the cervix and physiological changes of the epithelium. In *Haines and Taylor Obstetrical and Gynaecological Pathology,* 217. H. Fox (editor). (London: Churchill Livingstone).

SINGER, A. 1986. Recognition of sub-clinical human papillomavirus infection of the vulva. *J. Reprod. Med.*, vol. 31, no. 10, 985-986.

SINGER, A. 1987. The abnormal cervical smear. *Br. Med. J.*, vol. 6561, 1551-1554.

SINGER, A. 1987. Early diagnosis and treatment of cervical pre-cancer using cameras and biochemistry. *Med. Horizon*, vol. 1, no. 2, 17.

SINGER, A. (with Compion, M.) 1987. Vulval intraepithelial neoplasia - clinical review. *Genitourinary Medicine*, vol. 63, 147-149.

SINGER, A. (with Campion, M., Mitchell, H. S.) 1987. Complacency in diagnosis of cervical cancer. *Br. Med. J.*, vol. 294, 1337-1340.

SINGER, A. (with Jenkins, D., Maddox, P., Tay, S. K.) 1987. Lymphocyte phenotypes in cervical intraepithelial neoplasia and human papillomavirus infection. *Br. J. Obstet. Gynaecol.*, vol. 94, no. 1, 16-21.

SINGER, A. (with others) 1987. Recognition of cervical neoplasia by the estimation of a free radical reaction production (octadeca-9, 11-dienoic acid) in biopsy material. *Clin. Chim. Acta.*, vol. 163, 143-149.

SINGER, A. (and others) 1987. Recognition of cervical neoplasia by the estimation of a free radical reaction product (octadeca-9, 11-dienoic acid) in exfoliated cells. *Ibid.*, 149-152.

SINGER, A. (and others) 1987. Histological and immunocytochemical study of HPV 6 and 16 infection associated with CIN. *J. Clin. Pathol.*, vol. 39, no. 11, 1177-1180.

SINGER, A. (and others) 1987. Diagnosis of cervical neoplasia by the estimation of octadeca-9, 11-dienoica acid. *Lancet*, i, 537-539.

SINGER, A. (and others) 1987. Subpopulations of Langerhans cells in cervical neoplasia. *Br. J. Obstet. Gynaecol.*, vol. 94, no. 1, 10-15.

STEWART, A. L. 1986. Follow-up studies. In *Textbook of Neonatology*, 42-45. N. R. C. Roberton (editor). (London: Churchill Livingstone).

STEWART, A. L. (and others) 1986. Ultrasound appearance of the brain in very preterm infants and probability of neurodevelopmental disorders at 18 months of age. In *Neonatal Physiological Measurements*, 157-161. P. Rolfe (editor). (London: Butterworths).

STEWART, A. L. (and others) 1987. Probability of neurodevelopmental disorders estimated from ultrasound appearance of brains of very preterm infants. *Devel. Med. Child Neurol.*, vol. 29, 3-11.

STEWART, A. L. (and others) 1986. Probability of neurodevelopmental disorders calculated from brain ultrasound appearance in very preterm infants. *Ped. Res.*, vol. 20, 1026. (Abstract).

STEWART, A. L. (and others) 1986. Ultrasound brain-scans in very preterm infants and outcome at 18 months and 4 years of age. *Ibid.*, 1040.

WARD, R. H. T., MODELL, B. 1987. The method of chorion villus sampling under real-time ultrasound guidance using the 'Portex' cannula. In *Chorion Villus Sampling*, 57-64. D. T. Y. Liu, E. M. Symonds and M. S. Golbus (editors). (London: Chapman and Hall).

PAEDIATRICS

BARKER, P. M., RAMSDEN, C. A., STRANG, L. B., WALTERS, D. V. (with Boyd, C. A. R.) 1987. Active D-glucose transport across the pulmonary epithelium of the fetal lamb. *J. Physiol.*, vol. 388, 30P.

BRADFORD, B., STEWART, A. L., REYNOLDS, E. O. R. (with Conway, M. J., Hazell, J. W. P.) 1986. Prediction of brainstem auditory evoked potential in very preterm infants of hearing status at 1 year of age. In *Neonatal Physiological Measurements*, 185-186. P. Rolfe (editor). (London: Butterworths).

BREWSTER, F., CRAIG, G., GARDINER, R. M. (with Brenton, D. F., Garrod, P., Haseler, M. E.) 1986. Transport of L-phenylalanine and related amino acids at the blood-brain barrier in the lamb studied by the single pass multipler tracer dilution technique. *J. Physiol.*, vol. 377, 102P.

COSTELLO, A. M. de L., GARDINER, R. M., HOPE, P. L., REYNOLDS, E. O. R. (with Cady, E. B., Chu, A., Delpy, D. T.) 1987. Brain intracellular pH and metabolism during hypercapnia and hypocapnia in the new-born lamb. *J. Physiol.*, vol. 382, 1-4.

GARDINER, R. M., IVES, N. K., JOSHI, K. 1986. Brain uptake of bilirubin in the rat studied using a single-pass tissue-sampling technique. *J. Physiol.*, vol. 382, 100P.

HAMILTON, P. A., HOPE, P. L., WYATT, J. S., REYNOLDS, E. O. R., (with Cady, E. B., Delpy, D. T.) 1986. Phosphorus metabolites and intracellular pH in the brains of normal and growth retarded infants. *Ped. Res.*, vol. 20, 1037.

HAMILTON, P. A., COSTELLO, A. M. de L., STEWART, A. L., BAUDIN, J., BRADFORD, B. C., REYNOLDS, E. O. R. 1986. Ultrasound brain-scans in very preterm infants and outcome at 18 months and 4 years of age. *Ped. Res.*, vol. 20, 1040.

HOPE, P. L., COSTELLO, A. M. de L., REYNOLDS, E. O. R. (and others) 1986. Cerebral metabolism in newborn infants studied by phosphorus nuclear magnetic resonance spectroscopy. In *Neonatal Physiological Measurements*, 382-389. P. Rolfe (editor). (London: Butterworths).

HOPE, P. L., HAMILTON, P. A., COSTELLO, A. M. de L., REYNOLDS, E. O. R. 1986. Sensitivity of detection of brain-lesions in very preterm infants by ultrasound. *Ped. Res.*, vol. 20, 1054.

HOPE, P. L., GARDINER, R. M., REYNOLDS, E. O. R. (with Cady, E. B., Chu, A., Delpy, D. T.) 1987. Brain metabolism and intracellular pH during ischaemia and hypoxia: an in vivo ^{31}P and ^{1}H nuclear magnetic resonance study in the lamb. *J. Neurochem.*, vol. 49, 75-82.

HOPE, P. L., REYNOLDS, E. O. R. (with Gould, S. J., Howard, S.) 1987. Periventricular interaparenchymal cerebral haemorrhage in preterm infants: the role of venous infarction. *J. Path.*, vol. 151, 197-202.

KASANICKI, M. A., GARDINER, R. M. (with Cairns, M. T., Baldwin, S. A.) 1986. Identification and characterization of the glucose-transport protein from bovine cerebral cortex microvessels. *Biochem. Soc. Trans., 616th Meeting*, 391-591.

RAMSDEN, C. A. 1986. Active expiration or synchrony? *Arch. Dis. Child.*, vol. 16, 820.

RAMSDEN, C. A., REYNOLDS, E. O. R. 1987. Ventilator settings for newborn infants. *Arch. Dis. Child.*, vol. 62, 529-538.

SMELLIE, J. (with Normand, C.) 1986. Urinary tract infection and reflux nephropathy in children. *Medicine International.*, 1344-1349.

STEWART, A. L. 1986. Follow-up studies. In *Textbook of Neonatology*, 42-59. N. C. R. Roberton (editor). (London: Churchill Livingstone).

STEWART, A. L., HOPE, P. L., COSTELLO, A. M. de L., GOLDSMITH, M., REYNOLDS, E. O. R. (with Swain, P., Lowe, D.) 1986. Ultrasound appearance of the brain in very preterm infants and probability of neurodevelopmental disorders at 18 months of age. In *Neonatal Physiological Measurements*. 157-161. P. Rolfe, (editor). (London: Butterworths).

STEWART, A. L., REYNOLDS, E. O. R., HOPE, P. L., HAMILTON, P. A. (and others) 1986. Probability of neurodevelopmental disorders calculated from brain ultrasound appearance in very preterm infants. *Ped. Res.*, vol. 20, 1026.

STEWART, A. L., REYNOLDS, E. O. R., HOPE, P. L., HAMILTON, P. A. (and others) 1987. Probability of neurodevelopmental disorders estimated from ultrasound appearance of brains of very preterm infants. *Dev. Med. Child Neurol.*, vol. 29, 3-11.

WALTERS, D. V., STRANG, L. B. (and Geubelle, F.) (editors) 1986. *Physiology and pathophysiology of the fetal and newborn lung.* (London: MTP Publications.) 299 pp.

WALTERS, D. V., RAMSDEN, A. 1986. The secretion and absorption of lung liquid. In *Physiology and pathophysiology of the fetal and newborn lung*, 61-75. L. B. Strang, D. V. Walters (editors). (London: MTP Publications).

WALTERS, D. V. 1986. Absorption of fetal lung liquid at birth and its effect on the surfactant system. In *Perinatal Medicine. Problems and Controversies*, 123-128. D. Hawkins, Renzo, Di G. C. (editors). (Verona: Cortina International).

WHITEHEAD, M. D., COSTELLO, A. M. de L., HOPE, P. L., HAMILTON, P. A., REYNOLDS, E. O. R. (and others) 1986. Continuous recording and analysis of cardiorespiratory variables in ill preterm infants. In *Neonatal Physiological Measurements*, 313-319. P. Rolfe (editor). (London: Butterworths).

WYATT, J. S., REYNOLDS, E. O. R. (with Cope, M., Delpy, D. T., Wray, S.) 1986. Quantification of cerebral oxygenation and haemodynamics in sick newborn infants by near infrared spectrophotometry. *Lancet*, ii, 1063-1066.

WYATT, J. S., REYNOLDS, E. O. R. (with Cope, M., Delpy, D. T., Wray, S.) 1986. Continuous non-invasive monitoring of cerebral oxygenation in sick newborn infants by near infrared spectrophotometry. *Ped. Res.*, vol. 20, 1053.

PRIMARY HEALTH CARE

COHEN, J. 1987. My Mother - Alive or Dead? *Br. Med. J.*, vol. 294, 767.

COHEN, J. 1986. Diagnosis and management of problem patients in general practice. *J. Royal College of General Practitioners*, vol. 37, 51.

COHEN, J. 1986. Drug misuse and the general practitioner. *Update*, 259-261.

COHEN, J. 1986. Drug misuse in general practice. *Medical Annual*.

COHEN, J. 1986. Cocaine: An Old problem or a new one returned? *The Physician*, vol. 5, 861-862.

COHEN, J. 1986. Prevention or cure for child abuse. *The Practitioner*, vol. 230, 607-609.

COHEN, J. 1987. Accident and Emergency Services and General Practice-Conflict or co-operation? *Family Practice*, vol. 4, no. 2, 81-83.

COHEN, J. Rousell Medical Television Drug Dependency and the general practitioner 1) Recognition and Diagnosis; 2) Management Support and rehabilitation; 3) Solvents and inhalants.

COHEN, J. Hamlyn Film & Video Productions 1) Dementia, Its cause, diagnosis and management.

COHEN, J. 5th July 1986. Radio Four. The Good Book.

COHEN, J. 12th July 1986. Radio Four. Pride and Patriarchs.

CORNWELL, J. HURWITZ, B. 1986. Review of The Open University Course 'Health and Disease'. Books 1-8. Health A Reader, Audiotapes, Videos. *Br. Med. J.*, vol. 293, 384.

HAINES, A. P. 1987. Management of heavy drinkers in General Practice. *Alcoholism*, No. 2, 2-3.

HAINES, A. P., BOOROFF, A., GOLDENBERG, E. 1987. Blood pressure, smoking, obesity and alcohol consumption in black and white patients in general practice *J. Human Hypertension*, vol. 1, 39-46.

HAINES, A. P., IMESON, J. D., MEADE, T. W. 1987. Skinfold thickness and cardiovascular risk factors. *American Journal of Epidemiology*, vol. 126, 86-94.

HAINES, A. P., MEADE, T. W. 1987. The role of clotting factors in ischaemic heart disease. *Practical Cardiology*, vol. 13, no. 7, 41-51.

HARRIS, M., HUGHES, D. T. D., KRAMBOVITIS, E. 1986. Improved serodiagnosis of tuberculosis using two assay test. *J. Clinical Pathology,* vol. 39, 779-785.

HELMAN, C. 1986. The consultation in context. *Holistic Medicine*, vol. 1, no. 1, 37-41.

HELMAN, C. 1986. The Nocebo effect. *MIMS Magazine*, August, 21-22.

HELMAN, C. 1986. 'Tonic', 'Fuel' and 'Food'; Social and symbolic aspects of the long-term us of psychotropic drugs. Tranquillisers: Social, Psychological and Clinical Aspects, 199-266.

HELMAN, C. 1987. Psychosocial Disorders. Review of R. M. Turner and P. Williams. *Br. Med. J.*, vol. 294, 638.

HURWITZ, B. S., SOLOMONIDES, A. E. 1987. A computer database and prompting system to improve community care of diabetic patients: Towards a Diabetic Risk Register. *Association of University Teachers of General Practice Annual Scientific Meeting. London, 15-17th July 1987.* 36-38.

HURWITZ, B. S., SOLOMONIDES, A. E., WILSHER, D., YUDKIN, J. S. 1987. A diabetic data base and prompting system to improve community care. Medical and Scientific Section. *Br. Diabetic Assoc. Spring Meeting. Warwick, 26-28th March*. Poster Session. p. 2.

MODELL, M. 1986. Audit Report Reimmunisation of teenagers in a central London Practice. *Br. Med. J.*, vol. 292, 1051.

RICHARDSON, R., HURWITZ, B. S. 1987. Jeremy Bentham's self image: an exemplary bequest for dissection. *Br. Med. J.*, vol. 295, 195-198.

SIMS, P. 1986. War planning in the health service - a survey of Community Physicians. *Community Medicine*, vol. 8, no. 1, 58-71.

SIMS, P. 1986. A dilemma for doctors. *Medicine and War*, vol. 2, no. 3, 199-200.

SIMS, P. 1986. Health for 2000: Changing primary care. *General Practice Update* (Guest Editorial).

SIMS, P. 1987. Health for 2000: Changing primary care. *The Practitioner*, vol. 231, 551-552. (Guest Editorial).

WALLACE, P. G., BRENNAN, P. J., HAINES, A. P. 1987. Are general practitioners doing enough to promote healthy lifestyle? Findings of the Medical Research Council's General Practice Research Framework Study on Lifestyle and Health. *Br. Med. J.*, vol. 294, 940-942.

WISEMAN, S. M. 1986. Assessment of drinking patterns in *J. Royal College of General Practitioners*, vol. 36, 407-408.

YUDKIN, J. S., DOYAL, L., HURWITZ, B. S. 1987. Who shall live? Ethical inconsistencies in treating elderly patients in diabetic Keto-acidosis. Medical and Scientific Section. *Br. Diabetic Assoc. Spring Meeting. Warwick. 26-28th March 1987.* Poster Session. p. 29.

BARKER, C. and PISTRANG, N. 1987. Expressing feelings. In *You in Mind.* 13-16, S. Davies, A. Mason (editors). (London: BBC Education).

BELL, G. T. (with Glynne-Jones, R., Vernon, C. C.) 1986. Is steroid psychosis preventable with divided doses? *Lancet*, ii, 1404.

BELL, G. T. (with Glynne-Jones, R., Vernon, C. C.) 1987. Cerebral metastases and dexamethasone: psychiatric aspects. *Palliative Medicine*, vol. 1, 132-135.

BELL, G. T. (with Cremona, A.) 1987. Alcohol and death certification: a survey of current practice and attitudes. *Br. Med. J.*, vol. 295, 95.

BELL, G. T. and KATONA, C. L. E. 1987. Psychiatric disorder and gynaecological symptoms in middle-aged women. *Br. Med. J.*, vol. 294, 703. (Letter).

BRUCH, M. H. (with Stechow, J.) 1986. Negative self-talk before, during, and after a stressful performance task: Are self-schema, trait anxiety and mood equally valid predictors? In *Controversial Issues in Behaviour Therapy: Abstract Book of the 16th Congress of the European Association for Behaviour Therapy.* J. P. Dauwalder, V. Hobi and M. Perrez (editors). (Lausamme: University Press).

BRUCH, M. H., MEYER, V. (with Stechow, J.) 1986. Evaluation, negative self-schema in clinical maladjustment: A model of complex behavioural disorders in the psychiatric setting. *Ibid.*

COOKLIN, A. I. 1986. Therapy, the family and others. In *An Outline of Psychotherapy for Medical Students and Practitioners,* 73-90. H. Maxwell (editor). (Bristol: Wright).

COOKLIN, A. I. 1986. The family day unit: regenerating the elements of family life. In *Evolving Models for Family Change*, H. C. Fishman (editor). (Guilford Press).

FARMER, R. 1986. Deliberate self-poisoning. *Br. J. Hosp. Med.*, vol. 36, 437-442.

FARMER, R., MILLER, D. (with Green, J., Herzberg, J.) 1986. Training psychiatrists in behavioural psychotherapy: dispelling myths. *Bull. Roy. Coll. Psychiatrists*, vol. 10, 219-220.

FARMER, R. 1987. Hostility and deliberate self-poisoning: the role of depression. *Br. J. Psychiat.*, vol. 150, 609-614.

FARMER, R. 1987. Hostility and deliberate self-poisoning: the role of depression. *Ibid.*, 609-614.

FARMER, R. (with Creed, F.) 1986. Hostility and deliberate self-poisoning. *Br. J. Med. Psychol.*, vol. 59, 311-316.

FROST, D. P. 1986. A natural language interface for expert systems: system architecture. In *Advances in Artificial Intelligence: Proc. of the 1987 AISB Conference*, 157-168. J. Hallam, C. Mellish (editors). (London: John Wiley).

FROST, D. P. 1986. *A Practical Prolog Chart Parser for Generalized Phrase Structure Grammar.* Technical Report, (Imperial Cancer Research Fund).

FROST, D. P. 1987. A natural language interface for medical knowledge-based systems. In *Alvey Programme Annual Report 1987, Section IKBS 075.* (Millbank: Alvey Directorate).

GURLING, H. M. D., MULLAN, M. (with Beyreuther, K., Williamson, R. and Hardy, J.) 1987. Familial Alzheimers Disease does not segregate with the A4 amyloid gene in several European families. *Nature*, 327.

GURLING, H. M. D., 10 January 1987. Thames TV. Discussion programme on crime and mental illness.

HALLAM, R. S. 1987. Psychological approaches to the evaluation and management of tinnitus distress. In *Tinnitus*. J. W. P. Hazell (editor). (Edinburgh: Churchill Livingstone).

HALLAM, R. S. (with Jakes, S. C., Rachman, S., Hinchcliffe, R.) 1987. The effects of reassurance, relaxation training and distraction on chronic tinnitus sufferers. *Behaviour Research and Therapy*, vol. 24, 497-508.

HODGKINSON, S., SHERRINGTON, R., GURLING, H. M. D. (with Marchbanks, R. and others) 1987. Molecular genetic evidence for heterogeneity in manic depression. *Nature*, vol. 325, 805-806.

HODGKINSON, S., GURLING, H. M. D. (with Petursson, H. and McInnes, M.) 1987. Minisatellite mapping in manic depression. *J. Psychiat. Res.*, vol. 21, no. 4, 589-596.

IKKOS, G.; FITZPATRICK, R., FROST, D. A. (with Nazeer, S.) 1987. Psychological disturbance and illness behaviour in a clinic for sexually transmitted disease. *Br. J. Med. Psychol.* vol. 60, 121-126.

KATONA, C. L. E. (with Theodorou, A. E. and others) 1986. Platelet binding and neuroendocrine responses in depression. In *The Biology of Depression*, 121-136. J. E. F. Deakin (editor). (London: Gaskell).

KATONA, C. L. E. (with Horton, R. W. and others) 1986. Platelet radioligand binding and neuroendocrine challenge tests in depression. In *Antidepressants and Receptor Function*, 83-104. Ciba Foundation Symposium 123 (London, Wiley).

KATONA, C. L. E. and BELL, G. T. 1987. Depression and dysphoria in old age. In *Dysthymic Disorder: A New Concept in Chronic Mild Depression.* H Akiskal and S. Burton (editors), London, 11 June 1987, 14-15.

KATONA, C. L. E. (with Lam D). 1987. Who needs psychogeriatric continuing care? In *Abstracts of Annual Meeting of Royal College of Psychiatrists, Belfast 30 June-2 July 1987.*

KATONA, C. L. E. (with Cheetham, S. and others) 1986. Lower hippocampal but unchanged 5HT-2 binding sites in depressed suicide victims. *B.J.Pharmacol.*, vol. 89, 802P.

KATONA, C. L. E. (with Cheetham, S. and others) 1986. Monoamine neurotransmitters and their metabolites in cerebral tissue from depressed suicide victims. *B.J.Pharmacol*, vol. 90, 286P.

KATONA, C. L. E. (with Barnes, T. R. E.) 1986. Susceptibility to drug induced hypotension in post-partum psychosis. *Int. Clin. Psychopharm.*, vol. 1, 74-76.

KATONA, C. L. E. (with Theodorou, A. E. et al.) 1986. Platelet high affinity adrenoceptor binding sites labelled with the agonist (3-H) UK-14304 in depressed patients and matched controls. *Eur. J.Pharmacol.* vol. 26, 329-331.

KATONA, C. L. E. and O'BRIEN, C. 1987. Tetrahydroaminoacridine and Alzheimer's disease. Letter, *Lancet*, i, 444.

KATONA, C. L. E. (with Aldridge, C. R. et al.) 1987. The D.S.T. and outcome prediction in patients receiving E.C.T. *Br. J.Psychiat.*, vol. 150, 315-318.

KRAEMER, S. 1987. Annotation - working with parents: casework or psychotherapy? *J.Child Psychol. and Psychiat.*, vol. 28, no. 2, 207.

LEFF, J. P. 1986. *Transcultural Psychiatry.* Psychiatrists Information Service Monograph Series, 3. (Grove: Janssen).

LEFF, J. P. 1987. Transcultural psychiatry. In *Oxford Textbook of Medicine. Vol. II*, 25.57-25.59. D. J. Weatherall, J. G. G. Leddingham, D. A. Warrell (editors). (Oxford University Press).

LEFF, J. P. 1987. Changing the family environment of schizophrenic patients. In *Psychosocial Treatment of Schizophrenia*, J. S. Strauss, W. Boker, H. D. Brenner (editors). (Bern: Hans Huber).

LEFF, J. P. (with Strachan, A. M. and others) 1986. Emotional attitudes and direct communication in the families of schizophrenics: a cross-national replication. *Br. J. Psychiat.*, vol. 149, 279-287.

LEFF, J. P. (with Tress, K. H. and others) 1987. The Present State Examination Change Rating Scale. *Brit. J. Psychiat.*, vol. 150, 201-207.

LITTLEWOOD, R. 17 February 1987, Channel 4, 'Mistaken for Mad'.

MARGERISON, N. J. 1987. Better luck next time: mistakes to avoid in becoming a senior registrar. *Bull. Roy. Coll. Psychiatrist*, vol. 11, no. 7, 232-233.

MILLER, D. (with Carnwath, T.) 1986. *Behavioural Psychotherapy in Primary Care.* (London: Academic Press).

MILLER, D. (with Green, J.) 1986. *AIDS: The Story of a Disease.* (London: Grafton Books).

MILLER, D. (with Green, J.) 1986. Counselling for HIV infection and AIDS. In *Clinics in Immunology and Allergy: Acquired Immune Deficiency Syndrome vol 6(3)*, 661-683. A. J. Pinching (editor). (Eastbourne: W. B. Saunders).

MILLER, D. 1986. Counselling AIDS patients. In *Royal College of Physicians Conference on AIDS, London, May, 1986.*

MILLER, D. 1986. The social challenge of AIDS and HIV. In *New Zealand Venereological Society Annual Conference, Christchurch, August, 1986.*

MILLER, D. 1986. Psychosocial aspects of AIDS. In *Australian Scientific Congress on Sexually Transmissible Diseases, Sydney, August, 1986.*

MILLER, D. 1986. Counselling in AIDS. In *Royal Society of Medicine (Section of Psychiatry), London, November, 1986.*

MILLER, D. 1986. AIDS - Help for the person. In *Society for Psychosomatic Research, London, November, 1986.*

MILLER, D. 1987. Psychosocial support for people with AIDS. In *National Conference on Caring for AIDS, London, April, 1987.*

MILLER, D. et al. 1987. The effect of a government AIDS media campaign on a general population: antibody test requests and reasons. In *Third International Conference on AIDS, Washington D.C., June 1987.*

MILLER, D. 1986. Comment: HTLV-III - motivating behavioural change. *Br. J. Sex. Med.*, vol. 13, no. 6, 168.

MILLER, D. 1986. Taking the anxiety out of AIDS. *Stress Med.*, vol. 2, 259-265.

MILLER, D. 1987. HIV counselling: some practical problems and issues. *J. Roy. Soc. Med.*, vol. 80, 278-281.

NEWMAN, S. P. (and others) 1987. Counselling on late complications. *The Teaching Letter, Diabetes Education Study Group*, 49-52.

NEWMAN, S. P., KLINGER, L. (and others) 1987. Cerebral blood flow and arterial CO_2 during cardiopulmonary bypass. *Nucl. Med. Comm.*, vol. 8, 295.

NEWMAN, S. P., JOSEPH, P. (with Smith, P.) 1987. Acute neuropsychological and regional cerebral blood flow consequences of coronary artery bypass surgery. *Current Psychological Research and Reviews*, vol. 6, no. 2, 115-124.

ROSSER, R. M. (and others) 1987. A five year follow-up of patients treated with in-patient psychotherapy at the Cassel Hospital for Nervous Diseases. *J. Roy. Soc. Med.*, vol. 80, 549-555.

SCAMBLER, G. and SCAMBLER, A. 1986. Minor Psychiatric morbidity and menstruation. *Int. J. Social Psychiat.*, vol. 32, no. 3, 9-15.

SPOTO, G. (with Williams, P.) 1987. Abnormal beliefs in a 42-year-old Jamaican male. *Hospital Update*, vol. 13, no. 3, 224-228.

SPOTO, G. (with Williams, P.) 1987. Depression and anxiety in a 45-year-old woman dependent on Benzodiazepines. *Hospital Update*, vol. 13, no. 6, 476-479.

STURGEON, D. A., TARRIER, N. and TURPIN, G. 1986. The psychophysiology of schizophrenic patients living with high and low expressed emotion relatives. In *Psychophysiology and the Social Environment.* (New York: John Wiley).

STURGEON, D. A. (with others) 1986. Social interventions in the families of schizophrenic patients. In *Treatment of Schizophrenia: Family Assessment and Intervention.* Goldstein, Hand and Hahksey (editors). (Berlin: Springer-Verlag).

THOMPSON, J. A. 1986. *Nukleare Bedrohung: Psychologische Folgen des Atomkriegs.* (Weinheim: Psychologie Verlgas Union) (German) 190 pp.

THOMPSON, J. A. 1986. Psychological consequences of disaster: analogies for the nuclear case. In *The Medical Implications of Nuclear War*, 290-316. F. Solomon and R. Q. Marston (editors). (Washington, D.C.: National Academy Press).

SURGERY

BAKER, L., YIU, C., CLARK, C. G. (with others) 1987. Monoclonal antibodies reacting with DMH induced rat colorectal cancer. In *Proc. Advances in the Applications of Monclonal Antibodies in Clinical Oncology, London, 6-8 May 1987*, 59.

BARR, H., TRALAU, C. J., BARTON, T., LEWIN, M. R., CLARK, C. G., BOULOS, P. B., BOWN, S. G. (with Krasner, N.) 1986. Photodynamic therapy with phthalocyanine sensitisation in the rat colon. *Br. J. Surg.*, vol. 73, 1037.

BARR, H., TRALAU, C. J., BOWN, S. G., CLARK, C. G., BOULOS, P. B. (with Krasner, N.) 1986. Experimental studies in colonic photodynamic therapy. *Lasers in Medical Science*, vol. 1.4, 302.

BARR, H., TRALAU, C. J. BOULOS, P. B., CLARK, C. G., BOWN, S. G. (with Krasner, N.) 1987. Photodynamaic therapy of the normal rat colon with phthalocyanine sensitisation. *Br. J. Cancer*, vol. 56, 111-118.

BARTON, T. P., LEWIN, M. R. 1986. The role of the liver in the dietary protection against experimental colon cancer. *Dig. Dis. Sci.*, vol. 31, 435.

BARTON, T. P., LEWIN, M. R. 1986. Serum free cholesterol as a discriminant marker in colorectal cancer. *Ibid.*, 462.

BOWN, S. G. 1986. NdYAG Laser in general surgery. In *Gynaecological Laser Surgery,* 283-288. F. Sharp and J. A. Jordan (editors). (New York: Perinatology Press).

BOWN, S. G. 1986. Laser endoscopy. *Br. Med. Bull.*, vol. 42, 307-313.

BOWN, S. G. 1986. Endoscopic laser therapy for oescophageal cancer. *Endoscopy*, vol. 18, Suppl. 3, 26-31.

BOWN, S. G. MATTHEWSON, K., CLARK, C. G., BOULOS, P. B. (with Swain, C. P.) 1986. Endoscopic treatment of colorectal cancers with Nd YAG laser. *Br. J. Surg.*, vol. 73, 949-952.

BOWN, S. G., HAWES, R., MATTHEWSON, K., SWAIN, C. P., BARR, H., BOULOS, P. B., CLARK, C. G. 1987. Endoscopic laser palliation for advanced malignant dysphagia. *Gut*, vol. 28, no. 7, 799-807.

CLARK, C. G. 1986. Partial Gastrectomy. In *Atlas of General Surgery (2nd edit.)*, H. A. F. Dudley, D. C. Carter, and R. C. G. Russell (editors). (London: Butterworths).

CLARK, C. G. 1986. Advances in the treatment of peptic ulcer. *The Practitioner*, vol. 230, 283-286.

CLARK, C. G. 1986. Surgical management of gastroesophageal reflux reviewed. Invited Commentary. *Current Concepts in Gastroenterology*, vol. 4, 18.

CLARK, C. G. (with Taylor, T. V.) 1986. Complications of Gastric Surgery. Current Opinion in Gastroenterology, vol. 2, 875-878.

CROSS, F. W., MILLS, T. N., BOWN, S. G. 1987. Pulsed Nd-YAG laser effects on normal and atheromatous aorta in vitro. *Lasers in the Life Sciences*, vol. 1, 193-211.

CROSS, F. W. (with others) 1987. Time resolved phtoacoustic studies of vascular tissue ablation at three laser wavelengths. *Applied Physics Letters*, vol. 50, no. 15, 1019-1021.

CROSS, F. W., BOWKER, T. J., BOWN, S. G. 1987. Arterial healing in the dog after intraluminal delivery of pulsed Nd YAG laser energy. *Br. J. Surg.*, vol. 74, 430-435.

GELISTER, J. S. K., LEWIN, M. R., BOULOS, P. B. (with Mahmoud, M., Gaffney, P. J., Jass, J.) 1986. Tissue plasminogen activator (tPA) and urokinase (uPA) in human colorectal neoplasia . A role in the adenoma-carcinoma sequence? *Bri. J. Surg.*, vol. 73, 1036.

GELISTER, J. S. K., LEWIN, M. R., BOULOS, P. B. (withMahmoud, M., Gaffney, P. J.) 1986. Plasminogen activators inhuman colorectal neoplasia. *Br. Med. J.*, vol. 293, 728-731.

GELISTER, J. S. K., BOULOS, P. B. (with Jass, J., Mahmoud, M., Gaffney, P. J.) 1987. Role of urokinase in colorectal neoplasia. *Br. J. Surg.*, vol. 74, 460-463.

GEORGE, P. J. M. 1986. Recent advances: Laser treatment for lung cancer. *Medicine International (UK)*, vol. 2, no. 28, U138-139.

GEORGE, P. J. M. (with others) 1986. Resuscitative laser photoresection of a tracheal tumour before elective surgery. *Thorax*, vol. 41, 812-13.

GEORGE, P. J. M. (with Garrett, C. P. O., Hetzel, M. R.) 1987. Role of the neodymium YAG laser in the management ofg tracheal tumours. *Thorax*, vol. 42, 440-444.

GREENBAUM, R. 1986. Resuscitation. In *Anaesthesia Review 3,* 193-204, L. Kaufman, (editor). (Edinburgh: Churchill Livingstone).

GREENBAUM, R. 1987. A practical approach to head injuries, intracranial pressure monitoring and protection of damaged tissue. In *Anaesthesia for Neurosurgery (International Practice and Research,* 365-385. D. A. Jewkes (editor). (Balliere Tindall UK).

JAYARAJ, A. P. 1987. Periodic acid in the staining of acid-fast bacilli in tissue section. *Arch. Pathol. Lab. Med.*, vol., 111, 407-409.

JAYARAJ, A. P., TOVEY, F. I., LEWIN, M. R. (with Rees, K. R., White, J. S.) 1987. The ulcerogenic and protective action of rice and rice fractions in experimental peptic ulceration. *Clin. Sci.*, vol. 72, 463-466.

KAUFMAN, L. (editor). 1987. Anaesthetic Review 4. (London: Churchill Livingstone). 234 pp.

KAUFMAN, L., BAILEY, P. M. 1987. Intravenous bumetanide attenuates the rise in plasma vasopressin concentrations during major surgical operations. *Br. J. Clin. Pharm.*, vol. 23, 237-240.

LEWIN, M. R., BARTON, T. P. 1986. The role of the liver in the mechanism of dietary protection against experimental colon cancer. In *Proc. 9th Falk International Bile Acid Meeting: Basel Switzerland, 19-21 October 1987.*

LEWIN, M. R., JAYARAJ, A. P., HARRISON, R. A. (with Araujo, J. G., Sarmiento, J. L.) 1987. Bypass induced liver disease: an experimental study of the effect of post-operative protein supplementation and metronidazole therapy in an animal mode. *Br. J. Expt. Path.*, vol. 68, 15-23.

MATTHEWSON, K., BOWN, S. G. (with Coleridge-Smith, P., Northfield, T. C.) 1986. Comparison of continuous-wave and pulsed excitation for interstitial neodymium-YAG laser-induced hyperthermia. *Lasers in Medical Science*, vol. 1, 197.

MATTHEWSON, K. (with Al Mardini, H., Bartlett, K., Record, C. O.) 1986. Impaired acetaldehyde metabolism in patients with non-alcoholic liver disorders. *Gut*, vol. 27, 756-764.

McDERMOTT, E. W. M., HARRISON, R. A., CLARK, C. G. 1986. Does increased vascular permeability contribute to hypoalbuminaemia? *Br. J. Surg.*, vol. 73, 503.

McNICHOLAS, T. A. (with others) 1986. The combination of percutaneous surgery and ESWL for the treatment of large renal calculi. *Br. J. Urol.*, vol. 58, 581-584.

NEWHAM, D. J., TOMKINS, A. M., CLARK, C. G. 1986. Contractile properties of adductor pollicis in obese patients on a hypocaloric diet for two weeks. *Am J. Clin. Nutr.*, vol. 44, 756-760.

PUGH, S., GELISTER, J. S. K., WILLIAMS, S. E., LEWIN, M. R., BARTON, T. P., CLARK, C. G., BOULOS, P. B. 1986. Prostaglandin E2 (PGE2) changes precede tumour formation in the dimethylhydrazine (DMH) colon cancer model in rats. *Dig. Dis. Sci.*, vol. 31, 363.

SANDEMAN, D. R. 1986. Photodynamic therapy in the management of malignant gliomas: a review. *Lasers in Medical Science*, vol. 1, 163.

SANDEMAN, D. R., BOWN, S. G., THOMAS, G. T. (with Bradford, R., Bueton, P.) 1987. Selective necrosis of malignant gliomas in mice using photodynamic therapy. *Br. J. Cancer*, vol. 55, 647-649.

STEGER, A. G. (with Moore, K. C., Hira, N.) 1986. (a) The operative care of patients for Nd YAG contact laser surgery. (b) Contact low power Nd YAG in general surgery. (c) Low power contact laser palliation of oesophageal and rectal cancers. In *Nd YAG Lasers in Medicine and Surgery (Fundamental and Clinical Aspects)*, 124-127, 138-142, 178-182. Y. Oguro, K. Atsumi, S. Joffe (editors). Professional Postgraduate Services.

STEGER, A. G. (with Hira, N.) 1987. The palliative endoscopic treatment of inoperable oesophagogastric and rectal carcinomas: a low power direct contact technique. *Ann. Roy. Coll. Surg.*, vol. 69, no. 4, 166-168.

SWAIN, C. P., STOREY, D. W., BOWN, S. G., HEATH, J., MILLS, T. N. (with others) 1986. Nature of bleeding vessels in recurrently bleeding gastric ulcers. *Gastroenterology*, vol. 19, 595-608.

TOVEY, F. I. 1986. Osteomalacia afger gastrectomy. *Lancet*, i, 77-78.

TOVEY, F. I. (with Howden, A., Boswell, P.) 1986. In vitro sensitivity of campylobacter pylorides to furazolidone. *Lancet*, ii, 1035.

TOVEY, F. I. (with Moss, M. J.) 1986. The manufacture of diabetic footwear. *Southampton Med. J.*, vol. 3, 110-115.

TOVEY, F. I. (with Moss, M. J.) 1987. Specialist shoes for the diabetic foot. In *The Foot in Diabetes*, 98-108. H. Connor, A. J. M. Boulton, J. D. Ward (editors). (London: John Wiley and Sons).

TOVEY, F. I., GODFREY, J., CLARK, C. G. 1987. Postgastrectomy nutritional deficiencies. *Geriatric Gastroenterology*, vol. 11, 68-77.

TOVEY, F. I., KARAMANOLIS, D. G., GODFREY, J., CLARK, C. G. 1987. Screening for early postgastrectomy osteomalacia. *The Practitioner*, vol. 231, 817-822.

TRALAU, C. J., BARR, H., BOWN, S. G. (with MacRobert, A. J., Coleridge-Smith, P. D.) 1987. Photodynamic therapy with phthalocyanine sensitisation: quantitative studies in a transplantable rat fibrosarcoma. *Br. J. Cancer*, vol. 55, 389-395.

YIU, C., BAKER, L., CLARK, C. G. (with others) 1986. Monoclonal antibodies reacting with colorectal tumours. *Anticancer Res.*, vol. 6, 721-724.

YIU, C., BAKER, L., CLARK, C. G. (with O'Hare, M. J.) 1987. Human monoclonal antibodies to colonic antigens. In *Proc. Advances in the Applications of Monoclonal Antibodies in Clinical Oncology, London, 6-8 May 1987*, 27.

YIU, C., BAKER, L., CLARK, C. G. (with others) 1987. Immunoscintigraphy of colorectal cancer with an anti-EMA monoclonal antibody. In *Proc. Joint Annual Meeting, Association of Head and Neck Oncologists of Great Britain, British Association of Surgical Oncology, Society of Head and Neck Surgeons (USA), Society of Surgical Oncology (USA), London, 25-30 April 1987,212.*

YIU, C., BAKER, L., BOULOS, P. B., CLARK, C. G. 1987. Monoclonal antibodies in colorectal cancer. In *Celebration of the Wellcome Trust 50th Anniversary 1936-1986, University College, London, 27 May 1987.*

APPENDIX I

NUMBERS OF STUDENTS 1986-87*

	Under-graduate	*Post-graduate*	*Total*
Faculty of Arts	1,370 (43)	387 (176)	1,757 (219)
Department of Economics	370 (1)	27 (6)	397 (7)
Slade School of Fine Art	90 (0)	102 (0)	192 (0)
Institute of Archaeology	149 (11)	112 (50)	261 (61)
	1,979 (55)	628 (232)	2,607 (287)
Faculty of Science	1,729 (6)	† 724 (184)	2,453 (190)
Faculty of Medical Science ‡	301 (0)	0 (0)	301 (0)
Faculty of Engineering	476 (1)	311 (87)	787 (88)
Faculty of Laws	315 (21)	160 (49)	475 (70)
Faculty of Environmental Studies	201 (0)	247 (57)	448 (57)
Faculty of Clinical Sciences	501 (0)	64 (49)	565 (49)
	5,502 (83)	§ 2,134 (658)	7,636 (741)

* As at 31st December, 1986.

† This figure includes 87 full-time and 33 part-time students working in the College Faculty of Medical Sciences who were registered in the University Faculty of Science.

‡ Non-Clinical Medical and Dental students only (excluding intercalating B.Sc. students who are included in Science).

§ Of this number, 1,266 full-time students and 639 part-time students were registered for higher degrees of the University of London; the remainder were either working for higher diplomas of the University or of the College, or for higher degrees of other universities, or were engaged in research work, or were attending postgraduate lecture courses.

The figures in brackets indicate the number of part-time students included under each heading.

APPENDIX II

UNIVERSITY FIRST DEGREE AND DIPLOMA AWARDS

1 OCTOBER 1986 — 30 SEPTEMBER 1987

FACULTY OF ARTS

A Degree	*1st Class Honours*	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*3rd Class Honours*	*Pass*	*Total*
Ancient World	1	4	5	—	—	10
Anthropology and Geography	—	—	5	—	—	5
Anthropology and Linguistics	—	1	—	—	—	1
Archaeology	3	17	9	—	—	29
Archaeology of Western Asia	—	2	2	—	—	4
Classics	3	6	1	—	1	11
Classics and Ancient History	—	—	1	—	—	1
Dutch	—	3	—	—	—	3
English	2	20	27	2	—	51
Fine Art	—	13	7	—	—	20
French	1	21	17	1	—	40
Geography	4	19	19	2	—	44
German	2	3	4	1	—	10
Greek with Latin	—	—	—	1	—	1
Hebrew	—	3	—	—	—	3
History	4	32	25	—	—	61
History of Art	—	14	6	2	—	22
Italian	—	2	4	—	—	6
Jewish History	1	—	—	—	—	1
Latin	—	2	2	1	—	5
Linguistics	4	6	3	—	—	13
Medieval Archaeology	—	1	2	2	—	5
Modern Iberian and Latin American Regional Studies	—	3	7	—	—	10
Philosophy	2	15	15	1	—	33
Scandinavian Studies	—	2	2	1	—	5
Spanish with French	—	—	1	—	—	1
Ancient History and Egyptology	—	3	—	—	—	3
Ancient History and Social Anthropology	—	3	3	—	—	6
Dutch and German	—	—	1	—	—	1
Dutch and Scandinavian Studies	—	1	—	—	—	1
English and History of Art	1	—	—	—	—	1
French and History of Art	—	—	1	—	—	1
French and Philosophy	—	1	—	—	—	1
German and History of Art	—	1	—	—	—	1
German and Linguistics	—	—	1	—	—	1
German and Scandinavian Studies	—	2	2	—	—	4
History and History of Art	—	—	2	—	—	2
Italian and History of Art	1	—	—	—	—	1
Medieval Archaeology and History of Art	1	—	—	—	—	1
Philosophy and Economics	—	1	1	2	—	4
	30	201	175	16	1	423

	Pass	*Total*
A Degree (Aegrotat)	—	—

FACULTY OF LAWS

LLB Degree	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
	7	50	35	3	—	95

FACULTY OF MEDICINE

Basic Medical Sciences and Pharmacology Examination: 107 students passed.
Second Examination for Dental Degrees: 54 students passed.
MB, BS Degrees: 103 students passed, including 5 with distinctions.
BDS Degree: 47 students passed, including 5 with honours.

FACULTY OF SCIENCE

BSc Degree	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Anthropology	2	13	9	2	—	26
Anthropology and Geography	—	2	—	—	—	2
Applied Physics	2	5	4	12	1	24
Archaeology	1	4	1	—	—	6
Archaeological Conservation	—	2	2	1	—	5
Architecture, Planning, Building and Environmental Studies	4	21	19	4	—	48
Astronomy	3	1	3	2	—	9
Astronomy and Physics	1	7	10	3	1	22
Biochemistry	1	12	6	2	—	21
Biology	—	4	—	—	—	4
Botany	1	2	2	1	—	6
Chemistry	8	10	13	6	1	38
Combined Science	—	—	—	1	—	1
Computer Science	—	9	7	2	2	20
Computer Science with Electronic Engineering	1	2	3	3	—	9
Ecology	—	—	3	2	—	5
Exploration Geophysics	—	3	1	1	1	6
Genetics	—	3	1	—	—	4
Geography	1	11	8	—	—	20
Geology	2	6	7	—	—	15
History of Medicine	—	1	—	—	—	1
Human Sciences	—	6	—	—	—	6
Mathematics	3	10	5	3	1	22
Mathematics and Astronomy	1	1	2	—	1	5
Mathematics and Physics	2	—	—	1	—	3
Medicinal Chemistry	4	4	3	1	—	12
Microbiology	1	3	6	—	1	11
Microbiology and Genetics	—	1	1	—	—	2
Pharmacology	—	4	6	2	—	12
Physics	4	4	1	6	—	15
Physiology	—	5	4	1	—	10
Psychology	2	29	22	—	—	53
Speech Sciences	—	21	19	1	—	41
Statistics	—	1	2	2	1	6
Statistics and Computer Science	—	1	—	1	—	2
Statistics, Computing, Operational Research and Economics	—	2	4	1	—	7
Zoology	2	11	3	—	—	16
	46	221	177	61	10	515

BSc (Intercalated) Degree	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Anatomy with Basic Medical Sciences	6	12	—	—	—	18
Anthropology and Basic Medical Sciences	—	4	1	—	—	5
Biomedical Sciences	1	8	1	—	—	10
Genetics and Basic Medical Sciences	—	2	—	—	—	2
History of Medicine and Basic Medical Sciences	2	8	2	—	—	12
Microbiology and Basic Medical Sciences	3	1	—	—	—	4
Pharmacology with Basic Medical Sciences	1	8	2	—	—	11
Physiology with Basic Medical Sciences	—	3	1	—	—	4
Psychology and Basic Medical Sciences	—	20	4	—	—	24
Sociology as applied to Medicine and Basic Medical Sciences	—	—	1	—	—	1
	13	66	12	—	—	91

FACULTY OF ENGINEERING

BSc (Engineering) Degree	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Biochemical Engineering	—	4	—	1	—	5
Chemical Engineering	2	6	4	3	—	15
Civil Engineering	4	5	12	5	—	26
Electronic and Electrical Engineering	3	13	2	3	—	21
Electronic Engineering with Computer Science	—	1	1	1	—	3
Mechanical Engineering	2	4	2	2	3	13
Naval Architecture	1	1	—	2	1	5
	12	34	21	17	4	88

BEng Degree	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Biochemical Engineering	—	5	1	3	—	9
Chemical Engineering	—	1	2	1	—	4
Civil Engineering	—	1	1	—	—	2
Electronic and Electrical Engineering	3	4	3	1	2	13
Electronic Engineering with Computer Science	2	1	—	—	—	3
Mechanical Engineering	2	3	2	1	—	8
Naval Architecture	—	1	—	1	—	2
	7	16	9	7	2	41

BSc (Economics) Degree	*1st Class Honours*	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*3rd Class Honours*	*Pass*	*Total*
Economics	3	23	28	6	1	61
Economics and Economic History	1	5	3	—	—	9
Economics and Geography	—	8	4	1	—	13
	4	31	35	7	1	78

APPENDIX III

UNIVERSITY HIGHER DEGREE AND HIGHER DIPLOMA AWARDS

1 OCTOBER 1986 — 30 SEPTEMBER 1987

FACULTY OF ARTS

PhD *Bartlett School of Architecture and Planning:* Sophia Antonopoulou. *Classical Archaeology:* Korinna Pilafidis-Williams, Judith Swaddling, Sarah J. Vaughan. *English Language and Literature:* Timothy D. Armstrong, Hilary M. Day, Neil J. S. Rennie. *French Language and Literature:* Gillian Horrocks. *History:* Rory T. Cornish, Jorge A. Hidalgo Lehuede, Jean-Marc Pascal, Rosalind Thomas, Jonathan N. Tribbick, Dominic Tweddle. *History of Art:* Anthony D. S. Smith, Clive Wainwright. *Philosophy:* Oliver M. Black. *Phonetics and Linguistics:* Lohanayahi Baskaran, Diane L. Blakemore, Cheung Kwan-Hin. *Scandinavian Studies:* Bridget A. Morris, Kirsten Wolf. (22)

MPhil *Bartlett School of Architecture and Planning:* George J. Beldecos, Diana C. Bemrose, Abayomi O. Falana, Susan A. French, Grahame R. Gould, Bong G. Kim, Andrew J. M. Roberts, Shahabeddin Seyfollahi, Neil R. Sinden, So Lai Mui. *Dutch:* Christina J. J. M. Dockx. *Scandinavian Studies:* Donald F. Spade. (12)

MA *Anglo-American Literary Relations:* Susan N. Broidy, Neil E. B. Halliday, Mary C. Irving, Nancy Stanley, Elizabeth A. G. Woodward. *Archaeology:* Mary F. Cliff. *Archive Studies:* Kim C. Collis, Elizabeth A. Finn, Beatrice W. Githaka, Claire M. Harrington, Robert D. Simonson. *Area Studies:* Jose J. Angel Tobon, Franco Caprino, Martin Chilton, Thomas Desmarais, Steven G. Ellis, Paul G. Evenson, Melissa Hyams, Kathryn M. Jones, Ann K. Rushton, Patricia L. Salido Araiza, Paulo A. Sarmento Costa, Babatunde Sofela, Nelson A. Q. Vieira Filho, Denise A. Woodhead. *Classics:* Argyro Frantzi, Karine Guzelian, Rafael D. M. Marrinan, Henriette Murrell, Gareth A. Owens, Naoko Yamagata. *English Language (Modern):* Laufey Arnardottir, Edward Hounslow. *English Literature and Language before 1525:* Jo A. Clayton, Carol A. Howard. *German:* Mark S. Bailey*. *Hebrew and Jewish Studies:* Veronika Grodzinski. *Library and Information Studies:* David W. Alderdice, Karen D. Ashford, Asma Bte Ahmat, Sandra C. Bailey, Ruth Banger, Gerald R. Beasley, Mahrukh P. Bulsara, Matthew B. Byng, Styliani Chatzimari*, Alan E. Coates, Nicholas d'A. Collings, Janice Conway, Victoria C. Deas, Sarah J. Dodgson, John V. Eibner, Mark W. Fisher, Mark T. Flajsner, Jonathan J. Franklin, Zbigniew Gas, Edith L. P. Gildersleeves*, Fiona C. Harrison, Jane M. Henderson, Margaret Hoggan, Carol A. Howarth, Michael J. Hudson, Alison J. Jameson*, Rajinder K. Jassal, Rose E. Johnston, Nofal F. Karkauki, Rosalie S. King, Patrick J. Lambe, Elmelinda J. Lara, Magdalena I. M. Marenga, Nuala P. McSorley, Patricia A. Merrikin, Janice A. Modeste, Sheila Murray, Yuki Nagand, Vivien A. Peacock, Yoko Saito, Diana M. Schaubhut, Isabel C. Scholes, Lillian Sciberras*,

Mark L Sheinfield, Teresa J. Shergold, Helen M. Smith, Khuloud Sukkari, Elizabeth M. Traynor*, Annick M. Walker, Patricia F. Wanzala, Neil Wilson, Katharine, J. Wright. *Linguistics:* Keiko Akiyama, Anthia Destounis, Sonia M. A. Vandepitte*, Akemi Yuki. *Overseas Archive Studies:* Blessing D. Maringapasi, Mark F. Mbewe, Mohd. Maidin Bin Hussin, Susannah K. M. Rayner, Shamsi Bin Shariff, Sidek Bin Jamil. *Phonetics:* Dona M. A. Iriarte Villanueva, Stamatia Pagoni, Rosalind F. Tricker. *Scandinavian Studies:* Gerda L. Brooker. (103)

University Postgraduate Diploma: Fine Art: 42
*Awarded Mark of Distinction

FACULTY OF ECONOMICS

PhD *Economics:* Geoffrey S. Carroll, David Rosenthal, Spyridon Seretis, Ronaldo Seroa Da Motta*, Wilson Suzigan† *Laws:* Anwar G. M. Shawky. (6)

*Awarded 1985
†Awarded 1984

MSc *Urban Development Planning:* Ayoade Amori, Julio F. A. Bastarrachea Ortiz, Samira F. Bharmal, Colert A. Chakufa, Hernando Clavijo Vergara, Mohamed A. A. E. M. M. S. Daef, Sanusi M. Daggash, Edgar Del Villar Alvelais, Dewitt I. Hanna, Abdolreza Hosseini, Buttons I. Iyalla, Yao-chi Kuo, Abba Lawan, Seo H. Lim, Stella M. G. Magoye, Hamid Majedi Ardakani, Douglas D. D. Mantshontosho, Chaudhury, J. Mishra, Marlyn A. Morris, Mueni M. Mutuku, Uzoma R. Nwakaeze, Christopher N. Ogeah, Osemwegie R. Osazee, Ashok K. Pathak, Raquel Paz Solano, Peter A. K. Prah, Mohamed A. Saad Yeser, Nixon N. M. Thomas, Teresa C. R. Torres. (29)

FACULTY OF LAWS

PhD *Laws:* Charles M. Fombad, Joseph Fruchtman, Francis D. Rose. (3)

LLM Obinna C. Abiakam, Michael A. Adams, Benjamin A. Aina, Adedolapo A. Akinrele, Oludotun Austen-Peters, Agatha Balen, John Barker, Nora Benrubi, John C. Billings, Ahilefs Bitsaxis, Amma K. Boakye, Susanne, M. Bushell, Gregory R. Cavanagh, Andrew T. Cayley, Henry F. Charles, Pang K. Chew, Martin R. Chinnery, David Chong Gek Sian, Dawn A. Clark, David R. G. Coats, Catherine J. Colston*, Gary T. B. Crawley, Gary V. Cullen, Helen J. Desmond, Anne L. Dunford, Irving J. Eberwein, Paul T. Evans, Edwin U. Ezeoke, Sara A. N. Frith, Emmanuel M. K. Gogo, Navamanee R. Goomannee, Stuart Hamilton, Naranderjit Hayre, Richard J. Heatley, Ronald A. J. Herd, Hoh Chin Cha, Clarence A. N. Hughes, George A. Hylton, Judith S. Julius, Kalvinder Kaur, Liew Thiam Leng, Christina P. S. Ma, Robert A. Margolis, Marie Markianos, William T. Melbourne, Richard W. Morgan, Mary S. Moriarty,

Austin E. Newman, Richard F. Niven, Ngozi M. Nosegbe, Mojisola A. Ojelade, Constance R. Okello, Ikechukwu A. O. Onuorah, Desmond C. Oosthuizen, Femi Orotope-Paul, Maria Papathanassiou, Mayoor Patel, Salzwedel E. M. Pheko, Michael J. Pilkington, Bernard P. Quinn, Georgina A. Richards, Rizk Bahjat, Lorraine Roy, Meera Samanther, Thyagarajan Shanmugam, Ranjana Sharma, Mokoto Shimada, John C. Simpson, Nanette H. Songer, Olugbemiga O. Sowemimo, Paul R. Stevens, Karen F. Streitborger, Jeffrey C. Stuart, Ioannis Symplis, Mohammed L. Timbo, Julian A. Tucker, Leszek Stojgniew Werenowski, Rachel T. Wingert, Neil Woodgate, Rohazar W. Zuallcobley. (80)

University Postgraduate Diplomas: Air and Space Law: 1 International Law: 1
Shipping Law: 9 (including 1 distinction)

*Awarded Mark of Distinction

FACULTY OF SCIENCE

DSc Peter J. Smith. (1)

PhD *Anatomy and Developmental Biology:* Julia Adam, Alison J. Cook, Raymond L. Goodey, Charles H. V. Hoyle, Charlotte MacKenzie, Margaret J. Saffrey, Stewart D. Shipp. *Anthropology:* Salwa A. Al-Khateeb, Ann M. MacLarnon. *Bartlett School of Architecture and Planning:* Christopher J. Bull, Andreas Kourkoulas, David A. Lord, Naomi S. Neumann. *Biochemistry:* Ibrahim A. A. Al-Nasser, Katina Chatzipanteli, Gareth R. Tibbs. *Biology:* Lesley A. Bloomer, Caroline M. M. Deeney, Monica M. Epperlein, Charles K. Ffrench-Constant, Andrew J. W. Furley, Christopher J. Gallagher, John S. Harding, Charles G. B. Jennings, Sutherland K. MacIver, David J. Maudsley, Helen V. New, Claudia E. L. Reakes, Paul J. Scotting, Renee E. Sockett, Rupinder Tewari, Janet M. Tuohy, Ian C. Zachary. *Chemistry:* Abel M. A. Abu Namous, Hilary J. Bilyard, Philip Cope, Vincent B. Croud, George Drca, Clive M. Freeman, John A. Gisby, Peter S. Gregory, Shariff E. Kabir, Alka Khurana, Jonathan R. Lovering, Mohamad N. Meah, Hazel M. North, John R, Porter, Jesus C. Sanchez Ochoa, Jacqueline R. Walton. *Clinical Sciences:* Susan E. Holt, Hugh H. G. McGarrigle, Mary Petrou, Olga M. Rutherford. *Computer Science:* Peter J. Lloyd. *Genetics and Biometry:* Penelope J. Austin, Heather M. G. Cooke, Suzan E. Hunt, Gavin D. Kelsey, Elaine R. Levy, John A. T. Young. *Geography:* Guido C. Ambroso, Nicholas J. Anderson, Desmond J. Bowden, Carlo V. J. Ferrario, Vivienne J. Jones, Marian Mair, Sebastian Patrick, Deborah H. Potts, Elizabeth G. Sharp, Timothy J. S. Yates. *Geological Sciences:* Hashim T. Al-Najim, Paul R. Bown, Margaret J. Breare, Kevin W. Burton, Hilary J. Dockerill, Robert W. Simm. *History and Philosophy of Science:* Patrick M. Curry, Muriel Seltman, Lucas Siorvanes. *Mathematics:* James Bennett, Rupert V. Brotherton-Ratcliffe, Mark C. Hedges. *Pharmacology:* Neil A. Castle, Anne C. Field. *Physics and Astronomy:* Robert D. Bentley, Richard E. Cole, Martin Dunn, Alistair O. H. Glasse, Robert W. Harper, Gaetana Laricchia-Drinkwater, Nigel J. Mason, David J. Monk, Paul T. O'Brien, John G. Thornton,

Peter W. Waggett, Yu Yan. *Physiology:* Viviene J. Ayad, Austin C. Elliott, Margaret L. Reynolds, Christine Rickets, Marc Tessier-Lavigne. *Psychology:* Elizabeth L. Burbeck, Deborah Christie, Theresa Crowley-Bainton, Christopher Dewberry, Lesley C. Eames, Sara C. B. Hennessy, Graham J. Hole, Elizabeth A. McBride, George S. Moran, Lesley A. Owen, Cesar A. Piccinini, John P. Rack. *Statistical Science:* William J. Redfearn, Francoise M-L. G. Seillier. (115)

MPhil *Anatomy and Developmental Biology:* Amiya K. Mukherjee. *Pharmacology:* Paul R. Gater. (2)

MSc *Architecture:* Ayodele O. Alabi, Dana R. Arnold, Susan Barson, Edgardo Bolio Arceo, Iain Borden*, Paul Bradley, John Brady, James Butler-Aggrey, Peter Carney, Hassan M. Chami, Christopher R. Crouch*, Malcolm B. K. Dunkeld*, Fatima I. Edu, Hilda M. Fernandez Canelon, Dorothy J. Field, Leslie H. Freeman, Tereza M. M. Freire, Stephen P. Garrett, Hilaire C. Graham, Geoffrey N. Hanmer, Michael R. Hancock, Julian Holder, Stephen P. Hornby, Konstantinos Kakogiannis, Aida U. Kisanga, Antonia Kounalaki, Jeanne C. Lawrence, John M. Lee, Peter H. MacKenzie, Gaston G. McKenzie, Mehrdad Mansour-Tehrani, Agis N. Metaxas, Stuart A. R. Mills, Javier E. Mondragon Dominguez, Emma A. O. Nsugbe, Oroma B. A. Nwanodi, Kwasi Ofori-Amoako, Olaleke O. Osibamowo, Maxine G. Partridge, Naussica Passaloglou, Polly S. Penrose, Koullis Pittaros, Raymond, M. Pradinuk*, Sophia Psarra, Peter J. Quinn, David J. Ratcliffe, Gerard F. Ryan, Jeremiah F. Sheehan, Dimitris Stathis, Brian Tate, Brian G. Timmoney, Michael I. Ubaka, David Vanlint, Hector G. Vargas Rodriguez, Claire A. Wheeler, Sien W. S. Wong, Robert J. Wills, Timothy J. Wright. *Biochemical Engineering:* Russell G. Cameron, Saeid Esfandiari, Christian R. Imark, Iain C. Richardson*, Yoshitaka Takesawa, Stephen J. Tinson. *Biochemistry:* Sabina Hasan, Theodora Svolos. *Biological Anthropology:* Angela C. L. Pitchford, Anne-Marie Shepherdson. *Computer Science:* Ahman M. Abdullahi, Michalakis G. Aristidou, William J. Bunton, Oliver D. Clissold, Rodney Dorville*, Sylvia M. Ellison, Nicholas A. Hindley, Gregory Y. Ito, Rabih M. Kassem, Kong Heng Toh, Menelaos Koniotis, Stephen G. McElvanney, Paraskevi Mane, Michael J. Markson, Tito E. J. F. Menezes, Kiana Mohseni, Stephen P. Molyneux*, Theoklitos Paraskevopoulos, Georgios Pavlou, Madjid Shabpar, Mahesh V. Shah, Janet T. Sinclair, Kevin M. Smedley, Mark B. Smith, Linda A. Stepulevage, Nicholas S. Walker, Nicolaos Ziogas. *Conservation:* Paul R. Buckley, Gillian E. Castle, Tesesa Farino, Fancesc Giro Amigo, Julia Gomm, Nigel R. Hughes, Christopher M. T. Johnson, Dagmar A. Junghanns, Frank Lucas, Julia E. Masson, Steven D. Micklewright*, Robert Mileto, Amanda J. Nobbs, Dawn H. Thornton. *Data Communications Networks and Distributed Systems:* Regina B. D. Araujo, Thomas J. Casey Jnr., Goh Chin Sin, Huang Ran-Chi, Keith N. Mitchell, Emmauel F-K. Worlanyo. *General and Medical Microbiology:* Vincent Chow Tak Kwong*, Leon J. Guppy, Graeme T. Jacombs, Karen E. Lee, Antonis M. Makris, Sreekumar Sreenivasan, Pratul Unadkat. *History and Philosophy of Science:* Timothy M. Boon, Nasim S. Butt, Timothy S. Edwards, Erika Hagelberg, Leszek J. P. Kobiernicki, Patricia F. Lyons, Mark H. Pickworth*, Zhang Li Zhong. *Hydrogeology:* Tolulope

A. Akiwowo, Wayne G. Davies, James Dodds, Thomas R. Hargreaves, Patricia A. Hollis, Prem B. Karki, Stuart Kirk, Nimal Koulatunga, Patrick J. Marcello, Richard J. Marks, Comfort Molosiwa, Francis B. J. Msonthi, Roger D. Murphy, Kevin S. Wilson. *Marine Geology and Geophysics:* Hugh T. Banister*, Hans Cremer, David C. Edwards, Lili Sarmili, Hardeep S. Sidhu*, Thelma Thompson, Ian G. Wilson*. *Neurological Science:* Nikolaos Aggelopoulos, Martin D. A. Stanley. *Physiology:* Md. A. Bari, Antoine P. Farine, Peter W. Linjim, Juma'h M. M. Shakhanbeh. *Remote Sensing:* Sulaiman Abdullahi, Arwyn G. Anthony, Richard L. Beddell, Christopher P. Brown, Philip Eales, David J. Hall, William S. Hartley*, Javier Hervas De Diego, Trevor L. Hindle, Laurence C. G. H. Kirk*, Howard M. H. Lee*, Ashley D. Moore, James C. Pearson, Alison J. Scoon, Valerie J. Shearn*, Judith M. Steele, Min Swe, Andrea H. Turnbull, Iain F. G. Whittington, Venkata S. M. Yellepeddi. *Social Anthropology:* Robert M. Aitken, Georgia-Cleo Gougoulis. *Statistics:* Carmen Gonzalez, Richard J. Martin, Angela M. Wade, Gareth I. Williams. *Vertebrate Palaeontology:* Anthony P. Cripps, Paul E. J. Daley, Anthony L. Perkins. (186)

*Awarded Mark of Distinction

FACULTY OF ENGINEERING

DSc John Garside. (1)

PhD *Chemical and Biochemical Engineering:* Ijaz Hossain, Andrew P. Ison, Christopher J. Langley, Nigel J. Titchener. *Civil and Municipal Engineering:* Nader Baghaei Yazdi, Palvinder S. Chana, Panagiotis Koliopulos, Miles R. Tight, Anthony F. Toussaint, Lawrence N. Virgin. *Electronic and Electrical Engineering:* Timothy D. Burnett, Helen S. Frew, Kim I. Mallalieu, Luma S. I. Musa, Christopher M. Potter, Minaz Punjani, Izumi Sakai, Jeffrey D. Skinner, Geoffrey C. Sole. *Mechanical Engineering:* David W. Chalmers, Mark P. Connolly, Kevin R. Goheen, Niu Xiaonan, John B. D. Rush, Vasiliki Tsatsami. *Photogrammetry and Surveying:* Mohamed E-E. A-S. Amin, Arlete A. C. Meneguette, Martin J. Smith. (28)

MPhil *Civil and Municipal Engineering:* Ahmad H. Abdul Hamid, John D. Smith. (2)

MSc *Biochemical Engineering:* Burleigh G. C. Abbott, Gerardo Aguilera Soriano, Oliver J. Barnes*, Anthony Bartley, Manoj K. Bulsara*, Anthony Metters, Stephen D. Thompson, Diana M. Towle. *Ergonomics:* John Dowell, Kee Y. Lim, Peter Staddon. *Information Technology*†: John D. Addison, Catherine J. Brocklehurst, Domenico N. De Micco, John J. Fendley*, Stephanie A. Foley, Claire N. Foxcroft, Grant J. Goldsborough, Alexander P. Gracian, Jason J. Hooper*, Chi K. Hou, Michael D. R. Jefferies, Gareth H. Jones, Faruk Kara, Thomas G. M. Keaney, Charles B. C. Kiely, Alexandra Kyriacopoulos, Paul J. Morrison, Clive H. Naylor, Andrew C. Newton, Daniel M. I. Scordel,

Peter R. Simister, An S. Tan, Geoffrey Thomas, Lynn F. Weinberg. *Marine Engineering:* Daniel G. Bence*, Alistair R. Greig*, Steven R. Grzeskowiak, Christopher B. Jones, Dimitrios Kavouras, Paul J. Parlett*, Michael Philippakis*, Neil Phillipps, Mark C. Skinner, Alkiviadis Stromboulis, Robert P. Taylor, Nicholas Tzortzatos. *Microwaves and Modern Optics:* Stephen A. Ayres, Rawal S. Bains, Nigel A. Butler, Andrew C. Darney, Robert B. Franks, Robert K. Goldsmith, Philip C. Harvey, David J. Iredale, Philip J. Keating, Simon J. M. Mellor, Nader A. M. Nader, Graham M. Pengilley, Behruz Purseyyed, Noorazlin Saat, Adrian P. Simnett, Peter P. Smyth, Saindhav Tamhane, Alvaro F. Toledo, Christopher D. Watson, Vivian K-W. Yee, Yeoh Teck Hooi. *Naval Architecture:* Wallace S. Cuthbertson, Larrie D. Ferreiro, Stephen Gibson, Thierry E. Guezou, Kenneth B. Holt, Nicholas C. Howard, Neal A. McDonald*, Mohd. N. Mansor, Andrew J. Marshall, Karl A. Monk, James D. O'Reilly, Alfred B. Smith*, David M. Stuart, I. G. Suresh Kumar. *Ocean Engineering:* Franklin D. O. Goncalves, Aidan P. Holland, Jonathan F. Jury, Vaithilingam Karthigeyan, James D. Miller, William C. O'Sullivan, Jan Vatsvag, Brendan J. Walshe. *Photogrammetry:* Nigel J. High*, Keith J. Murray*, Helen M. Webb. *Surveying:* Rouzbeh Amin, Sally J. Chester, Terence W. Copeland-Davis, Andrew P. Crofts, Glenn M. Kennett*, David G. Martin, Keith D. Nursey, David J. Palin*, Martin Privett, Christopher Steel, David M. A. Walsh*. *Transport:* Grainne C. Brennan, Nigel P. Brown, Michael J. Cusack, Kenneth S. G. Davis, Rafael J. Delgado Contreras, Ian W. Dudgeon*, Andrew P. Fry*, Graham J. T. Hewson, George F. N. Janho, Jorge Matiz Pereira, Yosuke Mizukami*, Jae H. Oh, Timothy J. Robinson, Chartchai Ruktanagoon, Idwan Santoso, Michael P. Sheehan*, Hai P. Tan, Simon R. H. Taylor, Stephen H. Woods. (123)

*Awarded with Mark of Distinction

†MSc Information Technology — this course is taught jointly in the Department of Electronic and Electrical Engineering and the Department of Computer Science.

FACULTY OF MEDICINE

DSc (Med) Peter C. L. Beverley. (1)

MS Richard A. Harrison. (1)

PhD *Clinical Sciences:* Rafi H. Alwash, Dianne M. Creasy, Deborah J. Pritchard, Arumugam Punniamoorthy. (4)

MSc *Dental Public Health:* Anchalee Dusadeepan, Jostein I. Grytten, Deborah D. C. Morris, David M. H. Smith. *Periodontology:* Nicholas S. Cole, Tarabai a/p Taiyebali*. (6)

*Awarded Mark of Distinction.

APPENDIX IV

COLLEGE DIPLOMA AND CERTIFICATE AWARDS

1 OCTOBER 1986 — 30 SEPTEMBER 1987

FACULTY OF ARTS

Diploma in Archive Studies: Grace Lilian Atkinson, David Robert Biggs, Sally Elisabeth Coey, Brian Dyson, Elizabeth Sarah Greenwood, Robert Andrew Hale, Basil Gervase Francis Gerard Hood, Christopher Lambert*, Fiona Jane McAllister, Mark Jeremy Priddey, Elspeth Mary Reid, David James Ryan, Alison Mary Turton, Philip Winterbottom*.

Students from 1985-86 session:
Robert Roy Aspinall, Margaret Ann Crockett, Clare Louise Handley, Mary Gillian Clare Jackson, Robin Patrick Jenkins, Angela Carolyn Kenny, Jonathan Anthony Newman, Josephine Sarah Parker, Julian Robert Pooley, Robert Hugh Joseph Urquhart. (24)

Diploma in Economics: Jung-Son Yoon.

Students from 1985-86 session:
Panayiotis Christou Tillirou*, Etunwere Wanogho. (3)

Diploma in Library and Information Studies: Susan Mary Alexander, Maha A. Balluz, Andrew Bennett, Liliana Maria Sztejnbis-Jafar Biglou, Cecilia Cheung, Susan Rose Clark, Sarah Ann Cobbold, John Anthony Dawson, Deborah Jayne Downey, Gabriele Drescher, Sheila Ann Dunne, Angela Escott, Murugar Gunasingam, Susan Anne Henshaw, Catherine Isobel Inglis, Andrew Peter Isherwood, Kevin Brian Jewell, Stella Vivien Kingston, Matilda Josephine Sylvester Kuzilwa, James Rollo Legg, Inez Therese Philomena Alice Lynn, Louise Catherine Manners, Cyprian Mamadi Marah, Janet Elizabeth McMullin, Catherine Mary Northeast, Richard Ovenden, Stephen James Patterson, Mary Margaret Pelowski, Linda Rainbow, Andree Madeleine Regnier, Yukiko Saito, Frances Margaret Shipsey Miranda Shoebridge, Diana Mary Short*, Jeremy Charles Upton, Heather Margaret Walley, Elizabeth Mary Patricia Wells*, Martin Russell Wheatley, Stephen Christian Whitehead, Halina Whiteside, Michael Lindsay Wilson*, Joanna Hilda Wood, Jonathan Woolf.

Students from 1985-86 session:
Clare Charlotte Bebbington, Martin Ross Bedford, Jacqueline Gillian Brooks, Carol Brown, Matthew Benjamin Byng, Sheila Ann Cullop, Christopher Malcolm Dagleish, Victoria Catherine Deas, Charles Mark D'Orban, Edward Antony Maitland Ebden, Mark Thomas Flajsner, Jonathan James Franklin, Lavinia Griffiths, Michael Joseph Healy, Margaret Hoggan, Linda Jayne Humphreys, Rose Eku Johnston, Nicholas Christopher Joint, Sarah Louise Keates, Beverley Kemp, John Robert Knowles,

*Awarded Mark of Distinction

Kim Law, Penelope Ruth Leach, Andrew Charles Mark MacEwan, Magdalena Ijimbongoro Marukuavi Marenga, Patricia Anne Merrikin, Farideh Moussavi, Sheila Murray, Vivien Ann Peacock, Sarah Elizabeth Roberts, Katherine Helen Russell, Yoko Saito, Diana Maria Schaubhut, Isabel Claire Scholes, Teresa Jane Shergold, Helen Margaret Smith, Jamal Mahmoud Tabbara, Annick Michele Walker, Parthenope Lucy Ward, Rachel Anne Willatt, Neil Wilson, Stephanie Wilson, Katharine Jane Wright. (86)

Certificate of Proficiency in Elementary Latin: Joanne Christine Adams*, Nicolas Coureas*, Jonathan Ralf Dehany Gibson*.

Students from 1985-86 session:
Jennifer Akam Gowing, Barbara Rampoldi. (5)

Diploma of Proficiency in Phonetics: Marie Noille Calcoen, Pamela Cheung Sau Ping, Elisa Guiseppina Iolanda Faggio, Guiseppe Ferro, Juana Del Pino Garcia Martin, Daniela Maria Angiolina Ghirardani, Francesca Clorinda Valentina Guilianotti, Enrique Juan Gomez Ramirez, Madoka Hatsukawa, Evelyn Scholastie Hoarau, Antia Bharati Jethwani, Walter Joerres, Alexander James McCallum, Thomas Moore, Ying Pang Alfred Ng, Monica Pellegrini, Shigeko Shinohara, Shigehiko Tanaka, Fiona Patricia Helen Tweeddale.

Students from 1985-86 session:
Irene Aguirrebeitia Kortajarena, Keiko Akiyama, Colin Michael Bootle, Maria Busto, Sarah-Jane Butterworth, Marina Alison Cam, Maria Luisa Cavazzi, Mei Chi Dilys Cheung, Maria Inmaculada Corral, Katarzyna Dziubalkska, Francisco Jose Enriquez Becerra, Francesca Maria Carmela Finaldi, Frances Georgina Freeman, Sophie Elizabeth Gebbels, Rosario Gil, Dona Maria Anunciacion Iriarte Villanueva, Ju Hee Kim, Yuen Mzi Agnes Lam, Li-Si Hi, Sophia Joan Marie Pett, Barbara Rampoldi, Judith Anne Rantzen, Ana Maria Sanchez Inigo, Moira Kathleen Saville, David Addrew Seggie, Kazuo Sumi, Mary Watson, Akemi Yuki. (47)

FACULTY OF SCIENCE

Diploma in Computer Science: David William Fletcher, Kai Cheong Kwan. (2)

Diploma in Conservation: Paul Roderick Buckley, Gillian Elizabeth Castle, Teresa Farino, Maria Adriana Fernandez Ortega, Francesc Giro Amigo, Julia Gomm, Nigel Ross Hughes, Dagmar Alexandra Junghanns, Frank Lucas, Julia Elizabeth Masson, Steven David Micklewright*, Robert Mileto, Amamda Jane Nobbs, Dawn Heather Thornton. (14)

Diploma in Data Communications Networks and Distributed Systems: Regina Borges De Araujo, Thomas James Casey Jr., Kin Chung Chan, Goh Chin Sin, Huang Ran-Chi, Keith Niven Mitchell, Quoc Tai Tran, Emmanuel Fo-Kofi Worlanyo. (8)

*Awarded Mark of Distinction

Diploma in General and Medical Microbiology: Vincent Chow Tak Kwong*, Leon Jules Guppy, Graeme Timothy Jacombs, Setareh Kazemian, Karen Elizabeth Lee, Antonios Michael Makris, Sreekumar Sreenivasan, Pratul Unadkat. (8)

Diploma in Hydrogeology: Tolulope Adebola Akiwowo, Wayne Geraint Davies, James Dodds, Thomas Robert Hargreaves, Patricia Amy Hollis, Prem Bahadur Karki, Stuart Kirk, Nimal Kulatunga, S. M. Mahabub-Ul-Alam, Patrick John Marcello, Richard John Marks, Chilisana Marobela, Comfort Molosiwa, Roger Derek Murphy, Kevin Stuart Wilson. (15)

Diploma in Micropalaeontology: Victor Olugbenga B. Akinbode, Bahari Md. Nasib, Philippa Catherine Jeffcock, Colin Taylor Noble, Despina Pavlakelli, Kathryn Ann Young.

Students from 1985-86 session:
Paul Douglas Gamson, Jacqueline Highton, Nicolette Marie Hine, Peter Mears, David John Pitman, Muhammad Arif Rajput, Winton Gledhill Wightman. (13)

Diploma in Statistics: David Andrew Humphrey.

Students from 1985-86 session:
Ann Caroline Broda, Michael Smith, Ivor Bernard Stilitz.

Diploma awarded in 1985-86 but not included in the Annual Report for that year:
Benedict Mellor. (5)

FACULTY OF ENGINEERING

Diploma in Biochemical Engineering: Burleigh Gregor Clifford Abbott, Gerardo Aguilera Soriano, Oliver John Barnes*, Anthony Bartley, Manoj Kumar Bulsara*, Russell George Cameron, Saeid Esfandiari, Christian Rene Imark, Anthony Metters, Iain Charles Richardson*, Yoshitaka Takesawa, Stephen David Thompson, Stephen John Tinson, Diana Maria Towle. (14)

Diploma in Chemical Engineering: Yasmin Salman Abdul Husain Salman Khalaf.

Student from 1985-86 session:
Nada Mohamad Abdul Rahman Nachabe. (2)

Diploma in Information Technology: John Dering Addison, Catherine Janet Brocklehurst, Domenico Natalino De Micco, John James Fendley*, Stephanie Anne Foley, Clare Naida Foxcroft, Grant John Goldsbrough, Alexander Peter Gracian, Jason James Hooper*, Chi Kin Hou, Michael Dudley Richard Jefferies, Faruk Kara, Martha Kassa Lulseged, Thomas Gerard Martin Keaney, Charles Brian Ciaran Kiely, Paul Julian Morrison, Clive Howard Naylor, Andrew Christopher Newton, Daniel Mark John Scordel, Peter Robert Simister, An Soon Tan, Geoffrey Thomas, Lynn Frances Weinberg. (23)

*Awarded Mark of Distinction

Diploma in Marine Engineering: Daniel Gerhardus Bence*, Alistair Russell Greig*, Steven Richard Grzeskowiak, Christopher Brangwyn Jones, Dimitrios Kavouras, Paul James Parlett*, Michael Philippakis*, Neil Phillipps, Mark Christian Skinner, Alkiviadis Stromboulis, Robert Paul Taylor, Nicholas Tzortzatos. (12)

Diploma in Microwave Engineering: Stephen Andrew Ayres, Rawal Singh Bains, Nigel Antony Butler, Andrew Charles Darney, Robert Benjamin Franks, Robert Kenneth Goldsmith, Philip Charles Harvey, David James Iredale, Philip John Keating, Simon John Marcus Mellor, Nader Antoine Mousa Nader, Graham Martin Pengilley, Behruz Purseyyed, Noorazlin Saat, Adrian Paul Simnett, Peter Paul Smyth, Saindhav Tamhane, Alvaro Fernando Toledo, Christopher David Watson, Vivian Kay-Wan Yee, Yeoh Teck Hooi. (21)

Diploma in Naval Architecture: Wallace Struthers Cuthbertson, Larrie David Ferreiro, Stephen Gibson, Thierry Eugene Guezou, Kenneth Burgar Holt, Nicholas Charles Howard, Mohd. Nazim Mansor, Andrew John Marshall, Neal Angus McDonald*, Karl Alexander Monk, James Douglas O'Reilly, Alfred Bernard Smith*, David Michael Stuart, I. G. Suresh Kumar.

Diploma awarded in 1985-86 but not included in the Annual Report for that year: John Hoole. (15)

Diploma in Ocean Engineering: Franklin De Oliveira Goncalves, Aidan Patrick Holland, Jonathan Frederick Jury, Vaithilingam Karthigeyan, James Donaldson Miller, William Christopher O'Sullivan, Jan Vatsvag, Brendan John Walshe. (8)

Diploma in Photogrammetry: Solomon Olayinka Odunlami, Andrew Grayson Robinson.

Students from 1985-86 session:
Christine Susan Dowdeswell, Nigel John High*, Keith John Murray*, Helen Mary Webb*. (6)

Diploma in Surveying: Abiodun Agbeyo, Fiona Bloor, Mark Brannan, Jeremy James Brown*, Kathryn Crowther, Iain Charles Greenway*, Wisdom Katoma Kanyama, Yafesi Okia, John Charles Orena-Billa, Katherine Mary Tennant.

Students from 1985-86 session:
Ambogo Elly Ambogo, Rouzbeh Amin, Richard Giles Barrett*, Sally Jane Chester*, Terence William Copeland-Davis, Andrew Paul Crofts, Glenn Michael Kennett*, David Graham Martin, Keith Dennis Nursey, David John Palin*, Martin Privett, Brigit Rosenfeld, Christopher Steel, David Michael Arthur Walsh*. (24)

*Awarded Mark of Distinction

Diploma in Architecture: John Christopher Alexander, Simon Allford, Jane Glindon Bacon, George Martin Brennan, Charles Mark Trafford Brice, Gordon Andrew Clarke, Joy Marie Flanagan, Tadeusz Roman Grajewski, James Peter Greenwood, Jonathan James Hall, William Bertram Hulbert, Peter Alan Hull, Luk Chun Hung, David Kai Kwong Man, Paul Raymond Monaghan, Peter Charles Robert Morris, Karin Nagel Berger, Kok Aun Ng, Terence Donald Plant, Alexander Basil Rebanks, Joseph Tan Meng Hooi, Genie Tatarian, Andrew Robert Taylor, John Patrick Ward, Polly Wong Wan Pui, Marianne Patricia Wylson, Zailani Bin Bonander. (27)

Pre-Diploma Certificate in Architecture: Farid Escandar Afnan, Frances Josephine Anderton, Andrew Boyce, Barbara Ann Campbell, Siew Foong Cheong, Gordon Andrew Clarke, Nicholas David Cowie, Patrick George Hubert Dillon, Helen Jane Gardner, Andrew Kenneth Grindrod, Andrew James Hall, Phillip Michael Hubbard, William Bertram Hulbert, Peter Alan Hull, Jonathan Adeniyi Ibikunle, Paul Boris Jackson, John Arthur King, Tony Ka Luen Luk, Luk Chun Hung, Ian Ronald Malyan, David Kai Kwong Man, Daniel Mandishona, Duncan Robert McLaren, Lucy Priscilla Montgomery, Jeremy Fabian Moore, Jeremy Newsome, Christopher Oakland, Camille Maria Olsen, Clive Pendlebury, Alice Perrotte, Alison Sarah Rondel, Nicholas David Scales, James Julian Stephenson, Peter Victor Tarazi, Huw Thomas, Ewa Witkowski, David Ying Kit Wong, Catherine Zeliotis. (38)

Diploma in Development Planning: Nobuyki Ogura. (1)

†Diploma awarded in 1985-86 but not included in the Annual Report for that year.

Diploma in Urban Planning Practice for Developing Countries: Solomon Rumson Mua, Vincent Chukwuemeka Okolo, Adedotun Adetoun Olanipekun, Narasinha Prasad Panigrahi, Claire Cook Pavlik.

Students from 1985-86 session:
Sita Ram Agarwal, Shamsuddin Ahmed Burug, Susanna Chuin Yan Chung, Musharraf Hossain, Niyi Jacob Ibikunle, Nada Raja Iliya, Vincent John Kamara, Modu Abba Konduga, Luca Paolo Leone, Raphael Nagual, William Ng'Andu, Patrick Tom Odongo, Umesh Chandra Saxena, Mohammed Nasiru Shehu, Bellington Siame, Jas Karan Singh, Charles Njoroge Wachira, Ahmad Zainy Mohd Zain. (23)

Certificate in Development Planning: Mohammed Saad Al-Jurais, Mohamed Abdulla Al-Malki, Moh'd Abdel-Qader Al-Mokrahi, Rajagopalan Ange Veetil, Kailash Chander Batra, Marudachalem VM Chalam, Swapan Kumar Das, Madhav Prasad Dhakal, Wheatonia Yatta Dixon, Leila M/Ahed El Badawi, Mahasin Ayoub El Gadal, Hans Fox, Carlos Fuensalida, Haji Ya'Akub Haji Othman, Md Abdul Halim, Mohd Zakaria Hj Sarudin, Ma Victoria Juat, Shiv Kakodkar, Mulky Madhava Kamath, Jesa Ram Kapoor, Marah Jamal Khayyat, Donald Jacob Kudu, Subramaniam Kumar, Franciscus Siwadhi Mdee, Rakesh Misra, Ethel Mlalazi, Mohamad Rohim Bin Leber, Sivasankar Mudigonda, Nyeri Muriithia, Francis Gichiri Ndua, Thappandan Vellaichami Shunmugam Nithiyanandam, Mannarswamy Pillai Nithiyananthan, Michael Gerald

Oelofse, Ross Elliot Palmer, Aminur Rahman, Golam Rahman, Md Syedur Rahman, Gustavo Riofrio, Tankaram Sharma Sharma Tr, Pennaadam Mohamed Sheriff Ali, Sunil Kumar Sinha, Caruppusamy Palani S Subbhannan, Veeranan Subramani, Gnanadesikan Subramaniam Subramaniam, Kumar Datta Tapan, Herath Mudiyanselage Udeni Chularathna, Sahrom Ujang, Krishnamurthy Venkataraman, Wan Hanafi Wan Mat, Rusna Yusof, Begum Razia Zaman Zaman.

Students from 1985-86 session:
Jamal A Rahman Abusabaa, Sulayman Abd. Al Farraj, Saleh M. Al-Fawaz, Mohammed Al-Shahrani, Aziza Bte Kassim, Anwar Abdulla Badri, Neeta Bhatt, Samuel Bissoondial, Jacob Cherian, Collins Marshwell Chinzou, Loria Raquel Dixon, Suhardjo Djojo Suparmo, Cynthia Ivonne Downs Coulson, Swarnalatha Ekanayake, Mohammed O. B. Felemban, Sheelu Francis, Uma Ghosh, Jeyaraman Gurusamy G., Sheila Veronica Harris, Alexander Jacob, Kanagathara Kanagasabai, Satyanarayana Murty Katru, Helene Sharon Katz, Koo Kim Yune Koolamtseung, David Korboe, Gertrude Magezi, Thomas Mathew, Pratibha Mehta, Edith Mallya Munuo, Elangovan Muthuveeran, Senthil Vel Nachinarkiniasivan, Srinivasan Natarajan N., Easwari Nellayandar, Khuen Hin Pang Kin Lan, Jonas Rabinovitch, Hariharan Raman, Jeremiah Sara, Vincent T Seretse, Audhesh Narain Singh, Yogeshwar Prasad Singhdeo, Djoko Sujarto, Nadia Taher, Syafruddin Arsyad Temenggung, Deepak Thapa, Koipurathu Sukumaran Vijayan, Nurizan Yahaya. (97)

APPENDIX V

SCHOLARSHIPS, STUDENTSHIPS AND PRIZES COLLEGE AND UNIVERSITY AWARDS

COLLEGE AWARDS

Eleanor Allen Prize (Economics) — P. D. Amison.
Atchison Scholarships (Clinical Sciences) — T. Nayani.
Atchison Exhibitions (Clinical Sciences) — K. H. Tan.
Barlow Prize (Electronic and Electrical Engineering) — S. Sheard, P. Wheatley, R. Pearson.
Sir Herbert Henry Bartlett Scholarships (Architecture) — S. Eyong, B. S. Chiou, G. Beldecos, M. Lyons.
Herbert Batsford Prize (Architecture) — M. Wood.
Francis Perch Bedford Prize (Zoology) — Pauline Hernandez.
Bonney Prize (Geological Sciences) — K. W. Campbell, C. J. E. Oldershaw.
Bosanquet Prize (Mathematics) — N. C. Carr.
R. E. Bradbury Memorial Prize (Anthropology) — R. A. Ahmed.
Burhop Prize (Physics) — M. J. Offside.
Rodney Burn Prize (Fine Art) — Lea Andrews.
A. J. L. Cahill Memorial Prize (Political Economy) — A. E. Daniels.
Chadwick Certificate and Prize (Civil Engineering) — Elizabeth J. Buswell.
Chadwick Certificate and Prize for Preventative Medicine — Christiane Harris, Kathryn Matson.
Gordon Childe Memorial Prize — J. Henderson.
Churchill-Jenkinson Prize (Archive Studies) — P. Winterbottom.
Antonio Cippico Medal and Prize (Italian) — C. Gould.
Lillian Clarke Prize (Botany and Microbiology) — S. Money.
Clinton Prize (Electronic Engineering) — S. L. Stroud.
Corte Studentship in Mathematics — J. Rickard.
Cowley Prizes (Library and Information Studies) — Alison Jameson, Lucy Gildersleeves.
Croxon Memorial Scholarships (Clinical Sciences) — N. M. Jones, S. H. Ting, Seema Verma, W. Wang Ee Jen, G. Farfan.
Deans Scholarships — Yael Goldberg.
Donaldson Medal (Architecture) — T. Haynes.
Brian Duff Memorial Prizes (Physics and Astronomy) — J. Cave.
Early English Text Society's Prize — Rachel Burns.
Environmental Design Prize — D. Hancock.
Douglas and Anne Feltham Scholarship (Clinical Sciences) — N. Hoveyda, A. Massoud.
Fielden Research Scholarship (German) — M. S. Bailey.
Filliter Elective Period Award (Clinical Sciences) — G. Wrathall.
Richard Fitzgerald Prize (Engineering) — A. P. Royles.
Flemming Elective Period Awards (Clinical Sciences) — Virginia Barber.
Sir Banister Fletcher Prize and Medal (Architecture) — D. McLaren.
Daryll Forde Award (Anthropology) — C. S. Smaje.
Foreign Student Scholarship in Arts — Suzanne Naketen.
Carey Foster Research Prize (Physics) — N. J. Mason.

Irene Frowen Prize (German) — T. Smail.
Ione Gedye Prize — J. Maseman.
Goldsmid Elective Period Awards (Clinical Sciences) — Jane Hypher, S. Stebbings, P. D. Thomas.
Edith Goodyear Prize (Geological Sciences) — D. R. Woodgate.
Grimes Prize — Jane Murray.
Eleanor Grove Scholarships for Women Students (German) — Penelope Lister, Charlotte Nolte.
Eva Grunwald Memorial Prize (French) — K. Parsons.
Paul Haas Studentships (Botany and Microbiology) — Janet Touhy.
Violet Hall Prize (French) — Karen Hampshire, Kim Gallon.
Halley Prize (Astronomy) — M. N. Fary.
Hart Prize (Surveying) — I. C. Greenway.
Haymills Scholarship — I. Brown.
Archibald P. Head Memorial Medal and Prize (Mechanical Engineering) — D. T. Feely.
Heimann Medal and Prize (German) — E. M. Evans.
Henriques Scholarship (Fine Art) — Oona Grimes, Lucinda Crossley-Cooke.
Herschel Prize (Astronomy) — A. G. Wilson.
Elsie Hitchcock Prize (English) — Helen Simms.
John Oliver Hobbes Memorial Scholarship in Modern English Literature — Melanie Brewer.
Hollier Scholarship in Hebrew — Paola Pallais.
R. B. Hounsfield Prize in Traffic Engineering — Elizabeth Buswell.
Hotine Exhibition (Photogrammetry and Surveying) — J. J. Brown.
Huntingdon Research Centre Prize (Histology Part 1 Medical Sciences) — D. H. Wyllie.
ICI Prize (Second Prize in Anatomy Part 1) — R. D. Thompson.
ICI Pharmaceuticals Division Elective Period Awards (Clinical Sciences) — J. Hebden, Jennifer Hicks, N. Keeling, Christine Purce.
Institution of Civil Engineers Prize — M. S. Soliman.
Institution of Electrical Engineers Prize — Lim Meng Ann.
Institution of Mechanical Engineers Prize — N. J. P. Wirth.
Jackson Lewis Scholarships — Yael Goldberg, Laura Matthews.
Sir Hilary Jenkinson Prize (Archives Studies) — E. A. Finn.
Sir Hilary Jenkinson Scholarship in Archive Studies — R. Hale, G. Hood, C. Lambert.
Jevons Memorial Scholarship in Economic Science — P. S. Baker.
Rhianon Jones Memorial Prize (English) — Sherrie Price.
Kestelman Prize (Mathematics) — N. Hezghia.
Kitson Prize (Chemical and Biochemical Engineering) — T. A. T. Syed.
Dr R. Kohn Prize (Physiology Part 1 — Medical Sciences) — R. D. Thompson.
Richard Laitner Memorial Fund Elective Period Awards (Clinical Sciences) —G. Clunie.
Sir John Macalister Medal (Library and Information Studies) — Diana Short.
Harrie Massey Prize — F. Diego.
Matthews Prize (Exploration Geophysics) — D. J. Harrison.
Perren Studentship (Astronomy) — Lisa Micklewright.
Platt Prizes (Greek) — Kamini Khanduri.
Harry Poole Prize (Chemistry) — J. K. Jenkins.

Prankerd-Jones Fund Elective Periods Awards (Clinical Sciences) — Jacquie Bevin, Patricia Craig, A. Evans, A. Frankl, Katherine Gowing, Helen Harper, Suzanne King, Giovanna Malluci, N. Paish, Catherine Robinson, Catherine Stevenson.
Prankerd-Jones Memorial Prize in Fine Art — Dafydd Darknell, S. Hillen.
Prankerd-Jones Memorial Prize in Immunology — Neera Patel.
Prankerd-Jones Memorial Prize — Project — Part II Examination — J. C. Shepherd.
E. Pyddoke Prize — Elizabeth Hart.
Rank Taylor Hobson Prize — K. R. Barraclough.
Ramsay Memorial Medal (Chemistry) — A. A. Deakin.
Ricardo Scholarship (Political Economy) — P. S. Baker.
Mary Rischgitz Prize (Fine Art) — Melanie Counsell.
Riker Laboratories Elective Period Awards (Clinical Sciences) — I. Hatcher, M. Rickets.
Graham Robertson Travelling Scholarships (Fine Art) — J. Fernandez.
Fitzroy Robinson Drawing Prizes (Architecture) — B. Brink, R. Morrison, K. L. Lua, S. Martin, M. Wood, A. Lockyer, P. Kember.
Robert Ross Scholarship in Fine Art — M. Dunford, S. Pell.
Rosenheim Elective Period Awards (Clinical Sciences) — R. Abel, Helga Brown, Elizabeth Guest, S. Janmohamed, D. McDowell, P. McLoughlin, T. Mears, Cosinna Midgley, Michelle Newman, Deborah Pratt, Alison Smith, Bernadette Sturridge, H. Sutraz, T. Walker, Wilson Wang Ee Jen, A. Warrington, P. Whiter.
Slade Scholarships (Fine Art) — O. B. Norland, M. E. Bell, G. Quinn.
Franz Sondheimer Bursaries (Chemistry) — R. D. Howell.
Franz Sondheimer Prize (Chemistry) — V. Alikhani, A. Tsotinis, J. N. Kirwan, D. J. A. P. Waei How.
Harold Speight Prize in Economics — P. A. Voge, E. J. Wright.
Steer Medal and Prize (Fine Art) — A. Carruthers.
Stevenson Prize (Applied Mathematics) — T. A. A. Syed.
Sir Andrew Taylor Prize in Architecture — I. Mansur.
Sir Andrew Taylor Prize in Fine Art — M. Palfrey.
Touche Ross Prize (Economics) — G. Record.
Tuffnell Scholarships (Chemistry) — J. K. Jenkins, Susan M. Trevellick.
L. F. Vernon-Harcourt Prize (Civil Engineering) — R. A. Colwell.
Ellen Watson Memorial Scholarship in Applied Mathematics — A. G. Walton.
Dr D. T. Whittet Prizes (Pharmacology Part II — Medical Sciences) — S. R. Johnson.
Audrey Wykeham Prize (Fine Art) — S. Robertson.
T. C. Yu Elective Award — Rachel Brown, Lorraine Burton, R. Gallimore, S. Hannan, S. Koor, C. McKinlay, P. Pandya, R. Phillipson, Jacqueline Sanders, Jessie L. Skioldebrand, Tanya Thomson, Alison Tilley, Janette Treagust, A. Wijetunge.

FACULTY MEDALS AND PRIZES

Engineering: Goldsmid Medal and Prize — Lim Meng Ann.
Environmental Studies Medal and Prize — D. Hancock.
Medical Sciences: Medal and Prize — Neera K. Patel.

Anthropology: M. G. Smith Prize — P. Walker. *Rosa Morison Prize* — H. Bekele, W. Brittain.

Archaeology: Sessional Prizes — K. N. Wilkinson, Anne Marie Messent, Helen Raftopoulos.

Dutch: Sessional Prize — J. Ross.

Economics: Hume-Lloyd Scholarships — A. Zafar, S. D. Hobbs, S. Scott. *G. C. Allen Prize* — A. Y. Lawrence. *Sessional Prize* — P. L. Leane

English: Campbell Clarke Scholarships — J. Harrison, Jacqueline Levitas. *West Scholarship* — M. Newton. *Ifor Evans Prize* — R. Spurling.

Fine Art: Coldstream Prize — D. Cook. *Monnington Prize* — A. Sharpley.

French: Rosa Morison Prizes — Jane MacLeod, Elena Banks, Fiona Tweeddale.

Geography: College Prize — S. J. Penson. *H. C. Darby Prize* — G. Grubb. *Maconochie Prize* — H. Bennion. *W. R. Mead Prize* — A. S. Tribe.

German: Robertson Prize — Penny Lister. *Willoughby Prize* — Jane Ferguson.

Greek: Long Prize — P. Green. *Webster Prize* — Catherine Ashley-Boulton.

History of Art: Gombrich Prize — J. O'Brien. *Whittkower Prize* — M. Daniel.

Italian: Sir Anthony Panizzi Prize — Sophia Pett, Barbara Rampolde.

Philosophy: Dawes Hicks Scholarships — T. J. Ward, M. F. Brandi.

Phonetics and Linguistics: Harold E. Palmer Prize — Rachel Clark. *Alexander Melville Bell Prize* — Rosemary Woodcroft. *Goldman-Eisher Prize* — Barbara Woodcroft. *D. B. Fry Prize* — A. Ng.

Scandinavian Studies: Crabtree Prize — Dylan Meredith.

Spanish and Latin American Studies: Alcala Galiano Prize — Carlos Zaccarini. *A. A. Parker Prize* — Hilary Perez.

Architecture: Bartlett Prizes — M. Beanland, T. Stonor, S. Barrett, J. Flanagan.

Anatomy and Embryology: J. Z. Young Prize — Reuben Ford, Joanna Pearce. *N. A. Barnicot Prize* — Helen Peake, Patrick Yau.

Botany and Microbiology: Darwin Prize — Tanya Parish. *Robert Hooke Prize* — M. Berry. *Huxley Prize in Biology* — Louise Cooper.

Chemistry: C. K. Ingold Prizes — B. R. Cockerton, A. J. Nightingale, N. A. Tallant, S. N. Thorn.

Computer Science: Sessional Prizes — J. Blankson, Sioh Hoon Tay, N. Banyard, Chan Tai Wai, M. J. Handley.

Genetics and Biometry: Genetics and Biometry Prize — J. Clifford.

Geological Sciences: Chubb Prize — P. W. Olejnik. *Hollingworth Prize* — J. G. Larwood.

Mathematics: Filon Prize — W. P. Tan. *Hill Prize* — J. R. Mitchard. *Jeffery Prize* — G. J. Pantry.

Pharmacology: Sessional Prize — K. J. Prince. *H. O. Schild Prize* — D. A. Fennell.

Physics and Astronomy: Wood Prize — K. B. Teo. *Huggins Prize* — J. A. Moriarty. *Oliver Lodge Prize* — J. O. S. Schneider.

Psychology: Burt Prize — Deborah C. Harding. *G. C. Drew Prize* — A. M. Owen, E. E. Koritsas. *McDougall Prize* — Mary Kyriacou. *Spearman Prize* — Anna Marsland.

Statistical Science: Egon Pearson Prize — A. Holmes. *Karl Pearson Prize* — V. K. Bhuchan.

Zoology and Cell Biology: Zoology Prizes — Louise Barrett, A. Michael.

Chemical and Biochemical Engineering: Goldsmid Prizes — Diana J. Chew, C. T. Aitken, C. W. Brocklesby.

Civil and Municipal Engineering: Goldsmid Prizes — J. R. Simmons, D. S. K. Yim, L. C. W. Bedford.

Electronic and Electrical Engineering: Goldsmid Prizes — A. Ali, A. Twaij, P. Nowell, R. A. Villa.

Mechanical Engineering: Goldsmid Prizes — M. W. Hood, N. J. Overfield, A. J. Preece.

Medical Courses — Part I Examination: Drummond Prize in Biochemistry — J. M. Pearson. *Glaxo Prize for Best Aggregate Performance in Part I* — S. Leary. *ICI Prize in Physiology* — Venkatesha Balakrishnan. *Smith, Kline and French Laboratories Ltd Prize in Anatomy* — S. P. Arenias, D. H. Wyllie.

Medical Courses — Part II Examination: Behavioural Sciences Prize — M. D. Strickland. *Cluff Prizes in Physiology* — Suzanne T. B. Anderson, R. A. Fox. *Cuxson Gerrard Prize in Pharmacology* — M. J. Wallace. *Drummond Prize in Biochemistry* — N. R. Holland, J. C. Shepherd. *Elga Prize in General Pathology* — K. G. O'Flynn. *Suckling Prize in Neurosciences* — N. R. Holland. *Wellcome Prize in Human Biology* — P. S. Farley. *Wyeth Prize for Best Aggregate Performance in Part II* — N. R. Holland. *Project Prizes* — N. R. Holland, Suzanne T. B. Anderson.

Second Examination in Dental Surgery: Anatomy Prize — Miriam E. Armstrong. *Biochemistry Prize* — P. J. Connell. *Physiology Prize* — Miriam Armstrong. *Best Aggregate Performance Prize* — Miriam Armstrong.

UNIVERSITY POSTGRADUATE AWARDS

Leonard Sainer Prize — Dominique Sharon Garland. Runner up: Tan Wee Nee. *Sir Edward Stern Prize* — Philip Andrew Vose.

APPENDIX VI

BENEFACTIONS, DONATIONS RESEARCH GRANTS AND CONTRACTS

The College Council makes grateful acknowledgement of the following:

AGRICULTURAL RESEARCH COUNCIL

£17,651 for the Department of Botany and Microbiology for research on glutamine synthetase isoforms in relation to the pattern of glutamine metabolism.

AMERICAN HEART FOUNDATION

$1,500 for the Department of Pharmacology for the investigation of the binding rates of competitive antagonists at the endplate.

AMOCO FOUNDATION

£7,500 for the Department of Geography for a research study for planning application at Rock Lane, Hastings.

ANGLIAN WATER AUTHORITY

(1) £64,893 for the Department of Civil and Municipal Engineering for the Bacterial Aftergrowth project.

(2) £1,929 for the Department of Civil and Municipal Engineering for the study of the penetration of rapid gravity filters.

ANGLO-GERMAN FOUNDATION

£8,000 for the Bartlett School of Architecture and Planning for "A study of industrial society - managing large housing estates: a comparison between Britain and Germany".

THE ARTHRITIS AND RHEUMATISM COUNCIL

(1) £37,600 for the Department of Medicine for research into rheumatic disease.

(2) £18,108 for the Department of Medicine for the production and analysis of human monoclonal antibodies.

(3) £24,594 and £1,200 for the Department of Pharmacology for an analysis of the potential of anti-inflammatory drugs for causing long-term joint damage.

(4) £61,144 for the Department of Zoology and Cell Biology for a study of the mechanism of glucocoricoid hormone action: role of 90 KD heat shock protein.

ASSOCIATION FOR INTERNATIONAL CANCER RESEARCH

£1,000 for the Department of Botany and Microbiology for research into anti-mitochondrial drugs in cancer chemotherapy.

ASSOCIATED MEDICAL SERVICES INC.

$21,000 for the Department of Anatomy and Embryology (History of Medicine) for the study of the history of conceptual neurology.

ASTHMA RESEARCH COUNCIL

(1) £11,873 for the Department of Anatomy and Embryology for studies of the structural and functional relationships between paratracheal neurones in culture.

(2) £20,000 for the Department of Chemistry for the study of tissue and bronchoalveolar mast cells from human lung.

BRITISH HEART FOUNDATION

(1) £56,844 for the Department of Anatomy and Embryology for studies of the projection, roles and interactions of intrinsic cardiac neurones.

(2) £37,262 for the Department of Anatomy and Embryology for the regulation of the synthesis and secretion of Atrial Natrjurectic factor in aurial and ventricular myocytes cultured from man and experimental animals.

(3) £9,550 for the Department of Anatomy and Embryology for the study of cellular interactions during the earliest stages of heart development.

(4) £46,182 for the Department of Physiology for the study of lactate movements across myocardial membranes: effects on cardiac function.

(5) £29,893 for the Department of Physiology for the study of the mechanisms by which acidosis and inorganic phosphate inhibit the regulated contractile properties of skinned cardiac muscle.

(6) £18,568 for the Department of Physiology for the study of the cellular mechanisms which underlie hypertrophy of cardiac muscle.

BRITISH LIBRARY

(1) £47,650 for the Department of Computer Science for a Visiting Fellowship.

(2) £600 for the Department of Computer Science for C.E.C. Symposium on Electronic Publishing.

BRITISH MEDICAL ASSOCIATION

£5,000 being the T. P. Gunton Award for the Department of Surgery for "Dietary cholesterol: its role in human experimental colon cancer".

B.O.C. HEALTH CARE

£32,000 for the Department of Electronic and Electrical Engineering for "Pressure sensors for invasive monitoring".

BRITISH PETROLEUM

£52,003 and £5,000 for the Department of Chemical and Biochemical Engineering for extra-mural research on two major topics connected with fluidised beds.

BRITISH TELECOM

£500 for the Institute of Archaeology for Trundle Excavation.

CANCER RESEARCH CAMPAIGN

(1) £15,855 for the Department of Anatomy and Embryology for "Muscle differentiation: the role of eicosanoick in the transition of the proliferating myoblast to the nondividing diffentiating myotube.

(2) £61,308 for the Department of Biochemistry to study the effect of aflatoxins and other carcinogens on membrane polysome interaction in vivo and in vitro.

(3) £28,474 for the Department of Botany and Microbiology for the study of PO1 cytoskeleton and cell cycle control in schizosaccaromyces pembe.

(4) £3,984 for the Department of Genetics and Biometry for the study of PO1 oncogen activation in familial polyposis coli.

(5) £22,004 for the Department of Histopathology for a study of the early stages of extra-nodal lymphonas.

CARLESS OIL CO.

£500 for the Institute of Archaeology for watching briefs.

COMMISSION OF THE EUROPEAN COMMUNITIES

(1) £712,740 for the Department of Computer Science for "Span: parallel computer systems for integrated symbolic and numeric processing".

(2) £35,750 for the Department of Electronics and Electrical Engineering for the study of novel architectures in integrated optics suitable for sources of short coherence length used in telecommunications and sensors.

(3) £14,000 for the Department of Physics and Astronomy for the study of the chemical dynamic of small molecules, intramolecular energy, transfer and chemical reactions.

CYSTIC FIBROSIS RESEARCH TRUST

£25,308 for the Department of Medicine for "Search for an anomaly of a protein in the apical plasma membrane of nasal mucosa in cystic fibrosis".

DAKO LIMITED

£10,477 for the Department of Histopathology for "Immunocytochemistry: application of new techniques".

DEPARTMENT OF THE ENVIRONMENT

(1) £4,922 for the Bartlett School of Architecture and Planning for the investigation of contrast distribution in luminance scan data.

(2) £14,735 for the Department of Civil and Municipal Engineering (Transport Studies Group) for the test and further development of the Leeds micro-simulation model.

(3) £471,878 for the Department of Geography for research on acid deposition and lake sediment.

DEPARTMENT OF HEALTH AND SOCIAL SECURITY

(1) £311,315 for the Department of Paediatrics for the study of neurodevelopmental disorders in survivors of neonatal intensive care.

(2) £52,944 for the Dental School for the quantitative measurement of periodontitis by computer analysis of dental radiographs.

DEPARTMENT OF TRADE AND INDUSTRY

£8,597 for the Department of Psychology (Ergonomics Unit) for Cognitive Modelling.

DEPARTMENT OF TRADE AND INDUSTRY/NATIONAL PHYSICAL LABORATORY

£1,125 for the Department of Chemistry for "Acoustic thermometry using a spherical resonator".

ECONOMIC AND SOCIAL RESEARCH COUNCIL

(1) £25,920 for the Department of Anthropology for "Sheffield United Football Club's fans: a study of the hard-core supporters.

(2) £1,550 for the Bartlett School of Architecture and Planning for "Franco-British Rural Studies".

(3) £1,450 for the Bartlett School of Architecture and Planning for "The politics of the environment and rural areas: a comparison of British, French and Dutch policies, structures and attitudes.

(4) £12,310 for the Department of Geography for the study of occupancy change and the farmed landscape.

(5) £2,509 for the Department of Geography for a Review Conference on Latin America.

(6) £14,000 for the Department of Phonetics and Linguistics for "A word grammar of English".

(7) £280 for the Department of Economics for "Household composition and the design of indirect taxes".

(8) £31,950 for the Department of Psychology (Ergonomics Unit) for "Evaluating diagnostic tests for cross-section econometric models".

ESSEX COUNTY COUNCIL

£2,043 for the Institute of Archaeology for the Billericay Project.

EUROPEAN SPACE AGENCY

£15,100 for the Department of Electronic and Electrical Engineering for "Advanced radar altimeter techniques".

FARMATALIA CARLO ERBA LIMITED

£25,689 for the Department of Geriatric Medicine for Sermion (Nicergoline) Trial.

FOUNDATION FOR AGE RESEARCH

£45,145 for the Department of Anatomy and Embryology for the study of age-related factors in bone-cell function.

FORD MOTOR COMPANY

£14,643 for the Department of Mechanical Engineering for the study of the effects of inclination on engine cold start and drive away at varied temperatures.

THE FRANCIS AND AUGUSTUS NEWMAN FOUNDATION

£21,950 for the Department of Surgery to be used at the Department's discretion.

GENERAL ELECTRIC COMPANY

(1) £1,250,000 for the Department of Electronic and Electrical Engineering for the building of an additional floor to the Engineering Faculty Building.

(2) £24,000 for the Department of Electronic and Electrical Engineering as part support for a lectureship in the field of fibre optics.

HASTINGS DISTRICT COUNCIL

£1,295 for the Institute of Archaeology for the Hastings Priory Excavation.

HEALTH EDUCATION COUNCIL

£85,177 for the Dental School (Periodontology Department) for the development and evaluation of a self-instruction home care manual for people with periodontal conditions.

THE HEALTH PROMOTION RESEARCH TRUST

£2,300 for the Department of Psychology for research into the Psycho-physiological effects of withdrawal from regular exercise.

HEALTH AND SAFETY EXECUTIVE

£143,891 for the Department of Community Medicine for "Stress and health: explaining occupational differences in disease rates".

HISTORIC BUILDINGS AND MONUMENTS COMMISSION

(1) £74,701 for the Institute of Archaeology for the Boxgrove Palaeolithic Project.
(2) £73,439 for the Institute of Archaeology for a Pedologist Contract.
(3) £71,401 for the Institute of Archaeology for a Botanist Contract.
(4) £58,689 for the Institute of Archaeology for a Skeletal Biologist Contract.
(5) £16,226 for the Institute of Archaeology for excavation of Wealden in Surrey.
(6) £15,900 for the Institute of Archaeology for Broadfields Post Excavation.
(7) £8,000 for the Institute of Archaeology for the Botolphs Project.
(8) £3,178 for the Institute of Archaeology for "Plough Damage Assessment and Flint Mines".
(9) £200 for the Institute of Archaeology for a Channel Tunnel Survey.

ICCROM/UNESCO

£9,163 for the Institute of Archaeology for "Statuettes of Ain Ghazal".

IMPERIAL CANCER RESEARCH FUND

£56,385 and £12,242 for the Department of Histopathology (Morbid Anatomy) to test monoclonal antibodies against a wide variety of tumours.

INSTITUTE OF BIOTECHNOLOGICAL STUDIES

£80,000 for the Department of Chemical and Biochemical Engineering for "Extended use of bio-catalysts".

INTERNATIONAL BUSINESS MACHINES

£22,260 for the Department of Phonetics and Linguistics for a postgraduate studentship for research into grammar.

ITT CORPORATION

$25,419 for the Department of Electronic and Electrical Engineering for the design and application of digital optical devices.

JAPAN FOUNDATION

£11,700 for the Department of Laws for a visiting professorship in comparative law: "Japanese Law, East-West Trade".

JOSEPH ROWNTREE MEMORIAL TRUST

£10,503 for the Bartlett School of Architecture and Planning for an investigation of empty dwellings and void central systems in the public sector.

KABI VITRUM LIMITED

£6,000 for the Department of Medicine for studies in adult hypopituitary patients.

KAY KENDALL LEUKAEMIA FUND

£700,000 for the Department of Haematology for the foundation of the Kay Kendall Leukaemia Research Unit.

A. G. KNOLL

£12,500 for the Department of Chemistry for the study of the effects of LU 48953 on isolated human lung mast cells.

THE LEVERHULME TRUST

(1) £36,932 for the Department of Botany and Microbiology for research on hybrid cell cultures.

(2) £33,642 for the Department of Botany and Microbiology for research on microtubula associated proteins in insect cells.

(3) £35,013 for the Department of Economics for modelling research into discouraged workers and female hours of work.

(4) £40,500 for the Department of Egyptology for research on the "Survey of Memphis" project.

(5) £2,000 for the Department of Geography for an investigation into ownership and management of low income housing in England and Canada 1880-1920.

(6) £11,820 for the Department of Geological Sciences for research on mesozoic calcareous nannofossil biostratigraphy.

LONDON REGIONAL TRANSPORT

£7,380 for the Department of Civil and Municipal Engineering and the Bartlett School of Architecture and Planning for the development of a method for a comprehensive evaluation of integrated ticket systems.

MARCONI

£4,000 for the Department of Electronic and Electrical Engineering for phased array studies for mobile satellite terminals.

MARCONI DEFENCE SYSTEMS

£15,000 for the Department of Electronic and Electrical Engineering for a digital laser study.

MEDICAL RESEARCH COUNCIL

(1) £495,429 for the Department of Anatomy and Embryology for a study of the role of the hippocampus in spatial cognition and memory.

(2) £257,194 for the Department of Anatomy and Embryology for the study of neuronal circuits and mechanisms which are involved in sensory guided movements and mammalian motor learning.

(3) £212,377 for the Department of Anatomy and Embryology for analysis of sensory signals in the nervous system.

(4) £77,432 for the Department of Anatomy and Embryology for the study of the nucleus basalis magnacellularis of the rat.

(5) £63,960 for the Department of Anatomy and Embryology for the study of the role of mono-amines in the intitiation of primary phenotypic differentiating neurones during early development.

(6) £53,130 for the Department of Anatomy and Embryology for studies of the structural and functional relationships between paratracheal neurones in culture.

(7) £48,032 for the Department of Anatomy and Embryology for the M.R.C. Unit on nerual mechanisms of behaviour.

(8) £46,247 for the Department of Anatomy and Embryology for the study of cell-cell signalling during development.

(9) £17,000 for the Department of Anatomy and Embryology for patch clamp studies of neuropeptides at synapses in intramural autonomic ganglia.

(10) £14,220 for the Department of Anatomy and Embryology for immunocytochemical studies of the adult and developing visual cortex.

(11) £4,128 for the Department of Anatomy and Embryology for the study of the role of arcon collaterals in its formation of the goldfish retinotectal projection.

(12) £1,400 for the Department of Anatomy and Embryology for the localisation of neurotransmitter receptors in the autonomic nervous system.

(13) £900 for the Department of Anatomy and Embryology for the study of the environmental factors on the growth of enteric neurons in vitro.

(14) £802 for the Department of Anatomy and Embryology for the analysis of sensory systems in the nervous system.

(15) £72,185 for the Department of Biochemistry for the study of the properties of carnitine palmitoyltransferase in heart and liver.

(16) £35,056 for the Department of Community Medicine for a national survey of health and development.

(17) £83,892 for the Department of Medicine for the molecular analysis of the gene coding for Cytochrome b_{-245} and its role in chronic Gtanulomatous Disease.

(18) £61,258 for the Department of Histopathology for the characterisation of human mucosa associated lymphoid tissue and related malignant lymphona.

(19) £54,260 for the Department of Experimental Pathology for a study of erythrocyte inositides and phosphoproteins in relation to cell age and morphology.

(20) £153,804 for the Department of Paediatrics for the study of mechanisms of epithelial transport in the developing lung.

(21) £8,409 for the Department of Pharmacology for the study of the discharge pattern of cerebellar purkinje cell.

(22) £5,384 for the Department of Pharmacology for "Opamin as a probe to identify and purify proteins associated with calcium-activated potassium channels.

(23) £58,609 for the Department of Physiology for the study of the role of glutamate receptors in retinal synaptic transmission and their characterisation.

(24) £56,224 for the Department of Physiology for a comparison of electron spin and impedance as a means of measuring neuronal activity non-invasively.

(25) £39,917 for the Department of Physiology for an in vitro study of cardiac muscle hypertrophy and cellular mechanisms which underlie it.

(26) £23,255 for the Department of Physiology for the study of neurotransmitter action and signal processing in the vertebrate retina.

(27) £17,102 for the Department of Physiology for the study of intracellular calcium activity as a second messenger in cultured mammalian excitable cells.

(28) £15,528 for the Department of Physiology for the study of the neurotoxicity of capsarcin: selectivity of different routes of administration.

(29) £49,662 for the Department of Physiology for the psychological investigation of human motion perception.

(30) £49,060 for the Department of Psychology for the study of self-monitoring and editing in fluent aphasic speech.

(31) £39,050 for the Department of Psychology for the study of the long-term effects of the sympatho-adrenal system on behaviour inhibition in the rat.

(32) £4,041 for the Department of Surgery for research into 5HT1B receptors in bladder.

(33) £43,655 for the Department of Zoology and Cell Biology for the study of a putative neurotrophic factor in muscle.

(34) £5,933 and £243 for the Department of Zoology and Cell Biology for "Developmental neurobiology".

MENTAL HEALTH FOUNDATION

£35,174 for the Department of General Practice (Primary Health Care) for the study of the mental health of the carers of demented and non-demented patients.

MICRA LIMITED

£18,056 for the Department of Surgery (Surgical Unit) for anastamosis research.

MINISTRY OF DEFENCE

(1) £208 for the Department of Chemistry for nitration using dinitrogen tetroxide.

(2) £47,831 for the Department of Computer Science for a research study into distributed databases.

(3) £3,682 and £185 for the Department of Computer Science for the investigation of internetworking techniques.

(4) £86,924 for the Department of Electronic and Electrical Engineering for an array fed parabolic reflector anteanna.

(5) £7,504 for the Department of Mathematics for a numerical study of a short wave turbulent boundary layer interaction.

(6) £28,642 for the Department of Mechanical Engineering for the development of a pressure integration technique for hydrostatic analysis.

(7) £19,493 for the Department of Mechanical Engineering for the study of the computer modelling of fluids dynamical systems.

(8) £12,164 for the Department of Mechanical Engineering for the detection of characterisation of corrosion in aircraft structures.

(9) £5,215 for the Department of Mechanical Engineering for the replacement of diesel alternators in warships.

(10) £86,924 for the Department of Phonetics and Linguistics for improvements to speech synthesis by rule-algorithms.

(11) £70,543 for the Department of Phonetics and Linguistics for the investigation into possible applications of word grammars to automatic speech recognition.

(12) £1,126 for the Department of Phonetics and Linguistics for the study of the phonetic effects of word boundary in automatic speech recognition.

(13) £172,273 for the Department of Psychology (Ergonomics Unit) for integrating human factors into system developments.

(14) £162,777 for the Department of Psychology (Ergonomics Unit) for the development of assessment methodologies for speech input/output devices for use on the battlefield.

MULTIPLE SCLEROSIS SOCIETY

(1) £3,732 for the Department of Anatomy and Embryology for studies on the role of galactocerebroside in neuronal-glial interaction in C.N.S.

(2) £1,500 for the Department of Zoology and Cell Biology for immunocytochemical studies of Gliogensis in the developing optic nerve.

MUSCULAR DYSTROPHY GROUP OF GREAT BRITAIN

£28,936 for the Department of Medicine for "Human T-lymphocyte clones: their application to the study of immunologically mediated muscle damage.

NATIONAL FUND FOR CHILDBIRTH RESEARCH

£15,000 for the Department of Obstetrics and Gynaecology for the assessment of the value of the measurement of saliva oestriol: progesterone ration in the prediction of pre-term labour.

NATIONAL FUND FOR RESEARCH FOR THE CRIPPLED CHILD

£17,175 for the Department of Zoology and Cell Biology for the study of the molecular basis of cell-cell recognition in synapse formation.

NATIONAL FUND FOR RESEARCH INTO CRIPPLING DISEASES

£57,155 for the Department of Zoology and Cell Biology for the study of the molecular aspects of the interaction between retinal ganglion neurones and lamin.

NATURAL ENVIRONMENT RESEARCH COUNCIL

(1) £60,326 for the Department of Geological Sciences for the study of the mechanisms of inelastic rock fracture with application to deep engineering and energy resource technology.

(2) £57,812 for the Department of Geological Sciences for the study of the lattice dynamics and thermodynamic properties of mantle forming minerals.

(3) £3,289 for the Department of Geological Sciences for "Active Margin Tectonics in East Indonesia: a study with Gloria and Underway Geophysics".

(4) £47,831 for the Department of Genetics and Biometry for the study of environmental stresses and natural selection in drosophila using temperature sensitive mutants.

(5) £49,868 for the Department of Physics and Astronomy for the measurement of the topographic characteristics of land surfaces by satellite radar altimetry.

(6) £1,060 for the Department of Zoology and Cell Biology for the study of the genetic differences between salmon stocks.

NICHOLAS LABORATORIES

£16,000 for the Department of Geriatric Medicine for Kylie Bedsheet Trails.

NORTH ATLANTIC TREATY ORGANISATION

(1) BF 294,000 for the Department of Chemistry for the determination of thermophysical properties using spherical microwave and acoustic resonators.

(2) BF 188,000 for the Department of Chemistry for the resonance Raman study of metal complexes.

NUFFIELD FOUNDATION

(1) £2,500 for the Department of Anatomy and Embryology for the study of the autonomic nervous control of cerebral tumours.

(2) £2,162 for the Department of Anatomy and Embryology for the injection of antibodies to cell adhesion molecules to monitor neuronal-glial interactions.

(3) £1,980 for the Department of Anatomy and Embryology to study the effect of early neuronal activity on motoneurone survival.

(4) £860 for the Department of Anatomy and Embryology for research on the development of the menoaminergic innervation of the neocortex.

(5) £750 for the Department of Anatomy and Embryology for the study of Schwann Cell proliferation in degenerating nerves.

(6) £580 for the Bartlett School of Architecture and Planning for the use of local plans for effective town and country planning.

(7) £14,092 for the Department of Biochemistry for "The precise identification of the DNA nucleotide sequence that directs high temperature expression of yeast genes and determination of how its operation can be made efficient" and "An attempt to clone genes that confer the property of thermotolerance to yeast cells".

(8) £882 for the Department of Botany and Microbiology for research on plasmid conjugation streptomyces.

(9) £2,500 for the Department of Computer Science for applications of fractal geometry in computer-assisted cartography and related graphical problems.

(10) £3,000 for the Department of Electronic and Electrical Engineering for integrated optic Fabry-perot modulator in GaAs.

(11) £3,000 for the Department of Electronic and Electrical Engineering for research on silicon micromachining for passive optical sensors.

(12) £580 for the Department of Geography for "Uses of the Past".

(13) £1,500 for the Department of History for the study of housing in American Cities 1850-1914.

(14) £11,767 for the Oliver Bird Fund for the Department of Medicine for a comparison of cellular infiltration in experimental muscle damage and inflammatory muscle disease.

(15) £1,686 for the Department of Physiology for research on two-tone length perturbation of contracting striated muscle.

(16) £1,330 for the Department of Physiology to study the role of phosphodiesters in the response of the African frog, xenopis larvis, to increased salinity.

(17) £330 for the Department of Physiology for research on action potentials during acute hypoxic contractile failure of the heart.

(18) £907 for the Department of Zoology and Cell Biology for research on the characterisation of virally-induced cellular protein.

(19) £760 and £760 for the analysis of T-cells subsets in the immune response.

ORDNANCE SURVEY

£18,928 for the Department of Photogrammetry and Surveying for 'Thematic mapper and "spot" data for mapping'.

OVERSEAS DEVELOPMENT ADMINISTRATION

£78,271 for the Department of Botany and Microbiology for a study of the resistance of cow pea to striga gesnerioids.

PARKINSON'S DISEASE SOCIETY

£80,027 for the Department of Physiology for the study of motoneurone discharge synchrony in Parkinson's disease.

RESEARCH CORPORATION TRUST

(1) £6,000 for the Department of Physics and Astronomy for extensive tasks on new type of field-assisted monitor for use in low energy positron beams.

(2) £3,000 for the Department of Physiology for the injection of substances into growth cones of neurones in culture while monitoring their shape and mobility.

RESEARCH FOUNDATION FOR MENTAL HYGIENE

$12,470 for the Department of Psychology for "Studies of Play".

ROCKEFELLER FOUNDATION

$10,000 for the Department of Anthropology for the study of Third World rural development.

ROYAL COMMISSION HISTORICAL MANUSCRIPTS

£3,300 for the Institute of Archaeology for Air Photographs.

ROYAL SOCIETY

(1) £215,950 for the Department of Anatomy and Embryology for the Foulerton Research Professorship.

(2) £210,000 for the Department of Anatomy and Embryology for research into Developmental Biology.

(3) £8,000 for the Department of Geological Sciences for a fieldwork programme in Indonesia.

(4) £3,770 for the Department of Physiology as a supplement for additional apparatus.

(5) £3,600 for the Department of Zoology and Cell Biology for the Cyclo Sporin Fund.

(6) £1,050 for the Department of Zoology and Cell Biology for the in vitro culture and cloning of antigen-specific T-cells.

RUTHERFORD APPLETON LABORATORY

(1) £33,000 for the Department of Computer Science for an Electronic Mail Protocol Convertor.

(2) £50,377 and £34,600 for the Starlink Node project.

THE SANDOZ INSTITUTE FOR MEDICAL RESEARCH

£5,445 and £276 for the Department of Anatomy and Embryology for the study of the chemical characteristics of sensory fibres.

SCHLUMBERGER ELECTRONICS LIMITED

£110,000 for the Department of Electronic and Electrical Engineering for the Solartron Transducer Lectureship for research work in the field of sensors.

SCIENCE AND ENGINEERING RESEARCH COUNCIL

(1) £100,000 for the Department of Anatomy and Embryology for the study of the organisation of the prestriate visual cortex of the monkey.

(2) £43,764 for the Institute of Archaeology for palaeoenvironmental methods for dating prehistoric field systems.

(3) £41,810 for the Institute of Archaeology for taplonomic identification and analytical problems related to the reconstruction of diet from ancient human gut.

(4) £38,488 for the Institute of Archaeology for the development and implementation of statistical procedures for analysing prehistoric cemetries.

(5) £29,911 for the Institute of Archaeology for "Food legumes in Archaeology: new criteria for species identification and for evidence of early cultivation".

(6) £27,890 for the Institute of Archaeology for "Early harvesting of plant resources in Palestine: a new approach using microscopic studies of sickle blades".

(7) £24,178 for the Institute of Archaeology for comparative study of dental calculus and its relevance to dietary studies in Archaeology.

(8) £57,124 for the Department of Biochemistry for the analysis of streptomycote plasmid transfer and replication.

(9) £47,305 for the Department of Biochemistry for the analysis of a novel post-transcriptional modification of messenger RNAs in sacchaomyces cerevisial.

(10) £37,581 for the Department of Biochemistry for the application of stable thermophilic enzymes to catalysis in organic solvents.

(11) £57,124 for the Department of Botany and Microbiology for the analysis of streptomycote plasmid transfer and replication.

(12) £50,307 for the Department of Botany and Microbiology for the investigation of glutamin and asparagin uptake, metabolism and storage in plant cells in culture.

(13) £36,730 for the Department of Botany and Microbiology for the spectroscopic characterisation of the water oxidising system in plants.

(14) £7,054 for the Department of Botany and Microbiology for the study of the nitrogen relations in the host parasite association between sorghum vulgare and striga hermonthica.

(15) £36,800 for the Department of Chemical and Biochemical Engineering for the X-ray study of gas-fluidized beds.

(16) £80,000 for the Department of Chemistry for an X-ray diffractometer.

(17) £31,420 for the Department of Chemistry for the study of radical cation chemistry.

(18) £27,660 for the Department of Chemistry for the study of the mechanisms of reactions of organic ligands in clusters.

(19) £730 for the Department of Chemistry for the high resolution neutron and X-ray powder diffraction studies of minerals.

(20) £95,325 for the Department of Civil and Municipal Engineering for the study of Filter Backwashing Mechanisms.

(21) £42,230 for the Department of Civil and Municipal Engineering for the study of wave attenuation in the presence of coastal currents.

(22) £41,735 for the Department of Civil and Municipal Engineering for a comparative investigation of traffic signal design methodology in Great Britain and West Germany.

(23) £37,432 for the Department of Civil and Municipal Engineering for the computer-assisted design of high-capacity bus priority scheme.

(24) £233,890 for the Department of Computer Science for "Real time $2^1/_2$ division systems".

(25) £660,915 for the Department of Electronic and Electrical Engineering for the Microwave Research Unit: continuation of special agreement 1987-1991.

(26) £162,943 for the Department of Electronic and Electrical Engineering for "Digital Optics, III-V Semi-Conductors Devices and Systems.

(27) £99,625 for the Department of Electronic and Electrical Engineering for integrated optical device technology.

(28) £39,739 for the Department of Electronic and Electrical Engineering for optical control of phased array antenna elements.

(29) £20,780 for the Department of Electronic and Electrical Engineering for photon-assisted surface oxidation of silicon.

(30) £20,634 for the Department of Electronic and Electrical Engineering for the effects of an urban path on digital error rates at 55 GHZ for microcellular radio applications.

(31) £5,993 for the Department of Electronic and Electrical Engineering for optical pumping of millimetre wave mixers.

(32) £1,173 for the Department of Electronic and Electrical Engineering for acoustic-optic monomode fibre components.

(33) £52,589 for the Department of Genetics and Biometry for polygenic variation and variation of new mathematical methods.

(34) £25,560 for the Department of Mathematics for the study of hypersonic nonlinear interactions and separation.

(35) £6,766 for the Department of Mathematics for functional analysis/geometry of banach spaces.

(36) £4,600 for the Department of Mathematics for field analysis for quasistatic electromagnetic array in robotics and nondestructive evaluation.

(37) £649 for the Department of Mathematics for the study of the structure of free fields.

(38) £109,811 for the Department of Mechanical Engineering for studies of underwater inspection reliability for MPI and eddy current techniques.

(39) £103,759 for the Department of Mechanical Engineering for inspection of engineering ceramics using ultrasonic techniques.

(40) £94,950 for the Department of Mechanical Engineering for the study of inviscid and viscous flow interactions around hull forms in waves.

(41) £28,890 for the Department of Mechanical Engineering for digital representation and modification of surfaces for CADCAM applications in body support.

(42) £122,440 for the Department of Phonetics and Linguistics for speech technology assessment.

(43) £311,768 for the Department of Photogrammetry and Surveying for "Real time $2^1/_2$ division systems".

(44) £799,912 for the Department of Physics and Astronomy for Geophysical and Astronomical Research in Space, 1986/87.

(45) £351,795 for the Department of Physics and Astronomy for Experimental High Energy Physics 1986/87.

(46) £320,393 for the Department of Physics and Astronomy for partially autonomous MIMD machines.

(47) £298,770 and £60,251 for the Department of Physics and Astronomy for the development and construction of the Fabry-perot interferometer for the 150 long wavelength spectrometer.

(48) £96,952 for the Department of Physics and Astronomy for a programme to develop highly reflecting coatings for the far ultraviolet.

(49) £75,615 for the Department of Physics and Astronomy for advances in building a matrix of CCDs and in the readout architecture, for economic large area images.

(50) £64,295 for the Department of Physics and Astronomy for the integration of and upgrades to CCD-IPCS.

(51) £63,980 for the Department of Physics and Astronomy for the production of antimatter as antihydrogen.

(52) £46,175 for the Department of Physics and Astronomy for studies of planetary nebulae in the galaxy and the magellanic clouds.

(53) £42,818 for the Department of Physics and Astronomy for ultraviolet studies of hot stars.

(54) £40,726 for the Department of Physics and Astronomy for the display and analysis of three-dimensional thermospheric and ionospheric model of ground-based interferometer data.

(55) £38,810 for the Department of Physics and Astronomy for the calculation of electron impact ionisation cross-sections of atomic hydrogen.

(56) £35,093 for the Department of Physics and Astronomy for Atmospheric Research 1986/88.

(57) £29,832 for the Department of Physics and Astronomy for spacecraft charging measurements and control on T-SAT.

(58) £24,830 for the Department of Physics and Astronomy for the calculation of rotation vibration states of small molecules.

(59) £23,420 for the Department of Physics and Astronomy for the development of novel sensors for spacecraft altitude measurement and control.

(60) £13,932 for the Department of Physics and Astronomy for the establishment of digital links for geophysics data transmission.

(61) £12,200 for the Department of Physics and Astronomy for infra-red observations of water vapour in molecular clouds.

(62) £4,523, £2,497 and £1,755 for the Department of Physics and Astronomy for observations on UKIRT.

(63) £4,396 for the Department of Physics and Astronomy for Comet P/Halley observations from Table Top Mountain, California.

(64) £3,639 for the Department of Physics and Astronomy for optical speckle and spectroscope observations of magellanic clouds.

(65) £2,030 for the Department of Physics and Astronomy for the study of the use of skyrmions as a bridge between QCD and Nuclear Physics.

(66) £1,901 and £1,590 for observations on ATT.

(67) £1,650 for the Department of Physics and Astronomy for the derivation of Wolf-Rayet effective temperatures from the excitation of their ring nebulae.

(68) £1,634 for the Department of Physics and Astronomy for a deep complete spectroscopic survey with LDSS.

(69) £1,371 for the Department of Physics and Astronomy for observations on JKT.

(70) £1,357 for the Department of Physics and Astronomy for observations on NASA IRTF.

(71) £1,194 for the Department of Physics and Astronomy for observations of the Nobeyama 45 M radio telescope.

(72) £967 for the Department of Physics and Astronomy to study the problem of spectral line broadening of importance for opacity calculations.

(73) £869 for the Department of Physics and Astronomy for global thermospheric and ionospheric modelling.

(74) £724 for the Department of Physics and Astronomy for elemental abundance analyses of stars.

(75) £540 for the Department of Physics and Astronomy for observations on Int NS/16/86.

(76) £539 for the Department of Physics and Astronomy for observations on INT.

(77) £90,742 for the Department of Psychology for the study of the role of edge corners and curves in low level vision.

(78) £70,429 for the Department of Psychology (Ergonomics Unit) for the London MMI Centre.

(79) £44,440 for the Department of Psychology (Ergonomics Unit) for models of the user for man machine interface design.

SIGMA-TAU

(1) £22,874 for the Department of Medicine for the study of Carnatine Metabolism.

(2) £22,874 for the Department of Medicine for studies of L-Carnatine.

SOUTH EAST ASIAN CONSORTIUM GROUP

£5,000 for the Department of Geological Sciences for the Timer Project.

STANFORD UNIVERSITY

£2,908 for the Department of Community Medicine for the investigation of the relationship between socio-economic status and cancer.

SURGICAL LASER TECHNOLOGY

£1,000 for the Surgical Unit for surgical laser technology studies.

THAMES WATER AUTHORITY

£500 for the Institute of Archaeology for the Copthorne/South Thames Water Diversion Survey.

TWFORD PLANT LABORATORIES

£86,597 for the Department of Chemistry for the genetic engineering of anti-fungal and anti-aphid compounds.

U.C.H. SPECIAL TRUSTEES

(1) £16,392 for the Department of Surgery for a new project in peripheral laser angioplasty.

(2) £7,984 for the Department of Surgery for the study of control demand of analgesia.

UNITED KINGDOM ATOMIC ENERGY AUTHORITY

£7,760 for the Department of Mechanical Engineering to undertake the theoretical and experimental investigation of the potential of E.C.T. techniques for N.D.E. of an L.M.F.R.B. vessel.

UNITED STATES AIR FORCE

(1) $90,580 for the Department of Physics and Astronomy for real time modelling of the thermosphere and ionosphere.

(2) $77,500 for the Department of Physics and Astronomy for "Demonstration of a wind-measuring system".

(3) $31,245 for the Department of Physics and Astronomy for the development of a facility for real time simulation of the structure and dynamics of the terrestrial thermosphere.

UNITED STATES NAVY

£137,657 for the Department of Computer Science for "Interoperability of Network Management Systems".

UNITED STATES PUBLIC HEALTH SERVICE

(1) £91,067 for the Department of Anatomy and Embryology for the study for the cerebellum and conditioning.

(2) $40,001 for the Department of Anatomy and Embryology for the study of muscle ultrastructure in trachea, bronchi, lung vessels.

(3) £42,042 for the Department of Community Medicine for the study of social and occupational influences on health and illness.

(4) $23,004 and $3,336 for the Department of Pharmacology for the study of excitatory amino-acid neurotransmission.

(5) £3,000 for the Department of Pharmacology for the study of communicative disorders.

UNIVERSITY OF COLORADO SCIENCE CENTRE

£5,052 for the Department of Haematology for the expenses of a visiting professor in the Imperial Cancer Research Fund Unit.

THE WELCOME TRUST

(1) £112,700 for the Department of Anatomy and Embryology for the investigation of the structure and function of the visual cortex.

(2) £53,425 for the Department of Anatomy and Embryology for the study of the effects of commonly used laxatives on the enteric nervous system.

(3) £38,133 and £3,500 for the Department of Anatomy and Embryology for expenses connected with the Welcome Unit for the History of Medicine.

(4) £21,405 for the Department of Anatomy and Embryology (History of Medicine Unit) for the study of Richard von Kraft-Ebbing, 1840-1902.

(5) £18,737 for the Department of Anatomy and Embryology for the ultrastructural localisation of cholineacetyltransferase substance P and serotonin in vascular endotherial cells.

(6) £13,790 for the Department of Anatomy and Embryology (History of Medicine Unit) for "The History of Ticehurst Asylum, 1792-1917".

(7) £13,220 for the Department of Anatomy and Embryology (History of Medicine Unit) for "Physiology in London from Sharpey to Starling".

(8) £12,800 for the Department of Anatomy and Embryology for a study of the cholinergic neuromodulation in the enteric system.

(9) £9,000 for the Department of Anatomy and Embryology for a collaborative study of motion pathways of the cerebral cortex.

(10) £5,403 for the Department of Anatomy and Embryology for the investigation of branching retinal axons in the neonatal hamster.

(11) £3,280 for the Department of Anatomy and Embryology for the investigation of plasticity in the spinal cord.

(12) £2,853 for the Department of Anatomy and Embryology for the study of the rabbit geniculate nucleus.

(13) £2,275 for the Department of Anatomy and Embryology to study the development of the hamster visual system.

(14) £634 for the Department of Anatomy and Embryology to study the peripheral regeneration of cutaneous primary efferent fibres in the rat.

(15) £598 for the Department of Anatomy and Embryology to be used for research at the discretion of the Department.

(16) £475 for the Department of Anatomy and Embryology to investigate the responses of slow and fast motor units to partial denervation background.

(17) £210 for the Department of Anatomy and Embryology for the study of the role of intercellular functions in animal tissues.

(18) £18,875 for the Department of Biochemistry for a novel probe in the study of development and diffentiation in erythroid tissues.

(19) £21,160 for the Department of Chemistry for studies on the release of inflammatory mediators from mast cells.

(20) £38,754 for the Department of Community Medicine for the study of the epidemiology of coronary heart disease in Asians.

(21) £38,754 for the Department of Community Medicine for a fellowship in Clinical Epidemiology.

(22) £70,327 for the Department of Medicine for an investigation into the aetiology of pathogenesis of group B streptococcal infections in the neonatal period.

(23) £34,609 for the Department of Experimental Pathology for fluorescence microscopy in the investigation of stimulus secretion coupling.

(24) £30,165 for the Department of Experimental Pathology for the study of the role of potassium in the intracellular transport of proteins.

(25) £3,069 for the Department of Human Metabolism for the study of the immune response to specific antigenic challenge in patients with systemic lupus erythematosus.

(26) £113,210 for the Department of Medical Physics for the investigation of non-invasive physiological monitoring using near infra-red transillumination.

(27) £64,202 for the Department of Medicine for the molecular analysis of the gene coding for the 23K subunit of the microbicidal oxidase of phagocytic cells and its role in chronic Granulomaton's Disease.

(28) £9,901 for the Department of Medicine for a continued study of the factors influencing renal excretion.

(29) £9,807 for the Department of Obstetrics and Gynaecology for the development of first trimester anti-natal diagnosis for the maemoglobinopathies.

(30) £52,843 for the Department of Psychology to study the effect of altered auditory feedback in normal speakers and stutterers.

(31) £73,389 for the Department of Pharmacology for the analysis of neurotransmitter receptors and synaptic function in the vertebrate central nervous system.

(32) £47,560 for the Department of Pharmacology for studies on peripheral and central neurotransmitters and ion channels.

(33) £2,715, jointly with the Science and Engineering Research Council, a CASE Studentship for the Department of Pharmacology for the study of the role of inflammatory cells in chronic bronchial spasm.

(34) £634 for the Department of Pharmacology to study the effects of non-steroidal anti-inflammatory drugs.

(35) £121,731 for the Department of Physiology to study localised calcium changes within cells.

(36) £115,027 and £91,288 for the Department of Physiology for research into the regulation of intracellular Ca concentration in cardiac muscle.

(37) £49,439 for the Department of Physiology for the study of the control of the cell cycle by cytoplasmic messengers.

(38) £49,118 for the Department of Physiology for the study of synchrony of motoneurone discharge in Parkinsonism and other neurological disorders.

(39) £41,585 for the Department of Physiology to study the relationship between cerebral metabolism and function during post-natal development.

(40) £34,585 for the Department of Physiology for a study of the electrical properties of retinal neurones.

(41) £15,300 for the Department of Physiology for a study of the inhibitory amino-acid receptors of the mouse spinal cord.

(42) £475 for the Department of Physiology to investigate the adductor pollicis muscle in humans.

(43) £72,647 for the Department of Physiology for the study of membrane proteases in antigen presenting cells.

(44) £17,040 for the Department of Zoology and Cell Biology for rhinovirus epitope analysis.

(45) £8,801 for the Department of Zoology and Cell Biology for the study of the production of glial specific antibody markers using recombinant DNA techniques.

(46) £8,745 and £1,816 for the Department of Zoology and Cell Biology for the study of the biological effects of a putative neurotropic factor in skeletal muscle.

(47) £4,835 for the Department of Zoology and Cell Biology for a study of murine T-cell reactivity.

(48) £634 for the Department of Zoology and Cell Biology to investigate the production of specific anti-murine antiserum in rabbits.

(49) £598 for the Department of Zoology and Cell Biology to study antibody responses to insulins and their modifications.

WENNER-GREN FOUNDATION

$6,200 for the Department of Anthropology for the study of forms of religious action at a Hindu Temple in a multi-ethnic context in Sri Lanka.

WEST SUSSEX COUNTY COUNCIL

£3,000 for the Institute of Archaeology for the Goring Roman Villa Excavation.

APPENDIX VII

COLLEGE ACCOUNTS 1986-87

The Balance Sheet and Income and Expenditure Account for the year will be found on pages 302-304.

INCOME AND EXPENDITURE

INCOME for the year exceeded EXPENDITURE by £92,270. The net deficit carried forward on the Income and Expenditure Account was £4,748,632.

Income, including allocations from Reserves, exceeded that for 1985-86 by £4,796,358 including grants from the Court of the University which increased by £1,921,030, fees which increased by £1,545,661 and grants for research which increased by £1,567,339.

Expenditure was £4,726,998 more than in 1985-86. An additional £3,067,916 was spent on academic departments and services. Maintenance of premises decreased by £396,343. An additional £518,705 was spent on administration and miscellaneous expenditure decreased by £127,188.

Income and expenditure under the main classifications in 1986-87 as compared with 1985-86 and 1981-82 are shown in the following table.

DIRECTLY FUNDED RESEARCH UNITS
(figures indicate annual expenditure in 1986-87)

	£
Department of Anatomy and Embryology	
M.R.C. Neural Mechanisms of Behaviour Research Unit	269,181
Department of Genetics and Biometry	
M.C.R. Human Biochemical Genetics Research Unit	535,945
Department of Psychology	
M.C.R. Development Psychology Research Unit	326,599
Department of Zoology and Comparative Anatomy	
I.C.R.F. Tumour Immunology Unit	706,243

	1981-82		1985-86		1986-87	
	£	%	£	%	£	%
EXPENDITURE						
Salaries and Pensions of Teaching Staff	15,215,255	34.7	18,123,729	29.3	20,239,786	30.4
Departmental Expenses including Library	9,069,965	20.7	11,386,846	18.4	12,338,705	18.5
Research Grants	8,619,090	19.7	16,297,893	26.3	18,153,135	27.3
Maintenance of Premises	6,538,843	14.9	9,626,873	15.6	9,230,530	13.9
Administration	2,486,590	5.7	3,527,380	5.7	4,046,085	6.0
Other	1,902,433	4.3	2,719,423	4.4	2,592,235	3.9
Transfer for General Reserves	—	—	191,334	0.3	—	—
	£43,832,176	100.0	£61,873,478	100.0	£66,600,476	100.0
INCOME						
Endowments	328,245	0.8	421,888	0.7	403,959	0.6
Grants	23,864,442	55.4	31,640,479	51.1	33,561,509	50.3
Donations	2,061,220	4.8	190,397	0.3	194,097	0.3
Fees	7,152,483	16.6	7,149,333	11.6	8,694,994	13.0
Grants for Research	8,619,090	20.1	17,011,313	27.5	18,578,652	27.9
Research Training Support Grant	65,214	0.1	97,102	0.1	97,733	0.1
Other	959,423	2.2	2,419,346	3.9	2,854,834	4.3
Transfer From General/Specific Reserves	—	—	2,966,530	4.8	2,306,968	3.5
	£43,050,117	100.0	£61,896,388	100.0	£66,692,746	100.0

EXTRA-BUDGETARY ACTIVITIES

The College administers the finances of many research projects supported from outside sources. 1,345 were being pursued actively at 31 July 1987. Income increased from £17,011,313 in 1985-86 to £18,578,652 in 1986-87.

UNIVERSITY COLLEGE LONDON
BALANCE SHEET AS AT 31 JULY 1987

1986 £			1987 £	£
	FIXED ASSETS			
24,605,530	Land and Buildings			25,999,063
5,445,542	INVESTMENTS at lower of cost and Market Value			4,893,636
30,051,072				30,892,699
	CURRENT ASSETS			
226,580	Stores		209,702	
7,865,348	Expenditure Recoverable from Grants		9,270,293	
2,937,894	Debtors and Amounts Paid in Advance		4,724,590	
2,854,767	Short-Term Cash Deposits		3,116,268	
13,884,589			17,320,853	
	Less: CURRENT LIABILITES			
	Creditors and Accruals	5,627,852		
(6,414,991)	Overdrawn at Bank	750,202	6,378,054	
7,469,598	NET CURRENT ASSETS			10,942,799
37,520,670	NET ASSETS			41,835,495
4,504,446	TRUST FUNDS			5,049,154
£42,025,116				£46,884,652
	REPRESENTING:			
24,605,530	Capital Reserve			25,999,063
(3,775,896)	Adverse Balance on Other Reserves			(3,795,191)
7,632,598	Provisions			6,608,218
386,782	Balance carried forward on Revenue Grants			677,232
8,671,656	Earmarked Funds			12,346,176
37,520,670				41,835,498
4,504,446	TOTAL FUNDS			5,049,154
£42,025,116				£46,884,652

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31JULY 1987

1985-86 £		1986-87 £	£
	INCOME		
31,640,479	Grants from University Court		33,561,509
7,149,333	Fees		8,694,994
421,888	Endowments		403,959
190,397	Donations		194,097
17,011,313	Grants for Research		18,578,652
97,102	Research Council Training Support Grants		97,733
1,952,301	Contributions for Services Rendered		2,084,171
92,810	College Properties — Rents Receivable		153,380
48,993	Appropriation from Special Funds		48,620
64,236	Miscellaneous		146,484
261,006	Interest Receivable		422,179
£58,929,858			£64,385,778
	EXPENDITURE		
3,550,852	Administration	3,931,200	
43,105,143	Academic Departments	48,237,526	
1,869,958	Academic Services	2,204,279	
9,791,116	Maintenance of Premises	8,772,661	
583,653	General Education Expenditure	646,698	
645,006	Student Facilities and Amenities	667,696	
1,359,494	Miscellaneous	1,680,257	
800,490	Capital Expenditure met from Income	515,745	
46,515	Increase/(Decrease) in Provision for Salary Awards	(346,036)	
70,000	Transfer to Equipment and Furniture	—	
(140,083)	Increase/(Decrease) in Committed Balances	290,450	
£61,682,144			66,600,476

1985-86 £		1986-7 £	£
(2,752,286)	DEFICIT ON YEAR'S WORKING	*(brought forward)*	(2,214,695)
	TRANSFER (TO)/FROM SPECIFIC RESERVES:		
2,751,184	Long-Term Maintenance	1,914,174	
240,285	Restructuring	359,684	
25,789	Earmarked Funds	—	
(50,728)	Miscellaneous	—	
2,966,530		2,273,858	
	TRANSFER (TO)/FROM GENERAL RESERVES		
(191,334)	College Fund	33,110	2,306,968
22,910	SURPLUS AFTER TRANSFERS FROM RESERVES		92,270
(4,863,812)	ACCUMULATED DEFICIT AT 1 AUGUST 1986		(4,840,902)
£(4,840,902)	ACCUMULATED DEFICIT AT 31 JULY 1987		£(4,748,632)